REPORT RESUMES

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A REGIONAL COLLEGE FOR VANCOUVER ISLAND.
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AS ENVISIONED, THE REGIONAL COLLEGE IS JUSTIFIED BY THE MANY KINDS OF STUDENTS IT CAN SERVE AND THE VARIETY AND APPROPRIATENESS OF THE EDUCATIONAL SERVICES IT CAN OFFER. VANCOUVER ISLAND HAS TRANSPORTATION DIFFICULTIES, A MARKEDLY UNEVEN POPULATION, AND SPECIAL PROBLEMS IN FORESTRY EXPLOITATION. POPULATION GROWTH ON THE ISLAND HAS BEEN GREAT AND SCHOOL ENROLLMENT HAS INCREASED ACCORDINGLY. FOR THESE REASONS, RESIDENCES ARE ESSENTIAL, NEW CONCEPTS SUCH AS "WEEKEND COURSES" SHOULD BE IMPLEMENTED, AND A BRANCH CAMPUS IS NEEDED. AN ESTIMATED MINIMUM ENROLLMENT OF 650 STUDENTS REFERS TO FULL-TIME STUDENTS ONLY AND ASSUMES NO REDUCTION IN THE NUMBER ATTENDING 4-YEAR INSTITUTIONS. A POSSIBLE MAXIMUM ENROLLMENT IN THE FIRST YEAR IS 1,200. A FOUR-PROGRAM COMPREHENSIVE APPROACH TO THE BASIC CURRICULUM IS PROPOSED--ACADEMIC, COLLEGE, TECHNICAL, AND DEVELOPMENTAL. THE CONSENSUS FAVORS RELATIVELY SMALL FEES, BUT SCHOLARSHIPS AND FREE BOOKS ARE ALSO PROPOSED. REPORTS ON STUDENT AND COMMUNITY SURVEYS, FINANCES, AND FUTURE PLANS ARE INCLUDED. (HS)

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A REGIONAL COLLEGE FOR VANCOUVER ISLAND

by

Leonard Marsh

UNIVERSITY OF CALIF.
LOS ANGELES

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A REGIONAL COLLEGE
FOR VANCOUVER ISLAND

by

Dr. Leonard Marsh

with a Foreword by

DEAN NEVILLE SCARFE

U. S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
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Faculty of Education
University of British Columbia
1966

VANCOUVER ISLAND REGIONAL COLLEGE SURVEY

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FOREWORD

(by Dean Neville Scarfe)

It gives me great pleasure to write a short foreword to this already "classic" report on the planning, organization and development of a Junior College in Canada. Although this work was written in response to a particular request from a special group of School Trustees, it is in no sense confined to a small locality or to special regional needs. It is a book about the philosophical, sociological, educational and political problems that face any who would build a Junior College in Canada. It is a guide and compendium of information. It is a carefully reasoned statement of the pros and cons of the junior college type of education. It is particularly valuable and significant at the present time.

The "educational revolution" which is now gaining the interest of all Canadians is not solely a matter of numbers - though the 461,000 students seeking admission to colleges and universities by 1975 are a formidable fact for anyone to ponder! It is not even solely a matter of money, though the amounts now envisaged as the national investment by 1975 in young people of college age (e.g., $2,032,000 estimated in the Bladen Report) are of a size that few would have taken seriously a decade ago. There remains a tremendous amount of detailed planning at the local, regional, and provincial levels. There must be a growing preoccupation with the kinds of students who will be looking for higher education, and their greatly varying needs and capacities. New kinds of colleges, university courses, training programmes, and curricula must be evolved. We face not the world as it used to be, hoping that the "true and tried" methods of the past will serve. We face a world of great challenges and accelerating change. General education, equally with specialized education, demands revolutionary thought and a new type of education.

The two-year college has grown out of this new and stressful context to new prominence in educational calculations. It is not just a half-way house to the university, to "take up the slack" and relieve the universities from the flood of first-year students in Arts and Science. As U.S. experience is amply demonstrating, it has a highly important contribution to make in technical, vocational, and career-oriented programmes. In addition, there are new and exciting vistas of continuing education - adult education, extension work, and "community service" programmes. All of these possible parts of the community college curriculum, however, need re-examination. It is the "new look" which Dr. Marsh has given to the Regional College which makes this report particularly useful.

In the Faculty of Education at the University of British Columbia, we welcomed the opportunity to lay out for the nine school boards on Vancouver Island the pros and cons of a regional college, for several reasons. It is extremely valuable for any area to assess its resources, needs, and educational aspirations, as a region: indeed, valuable for a group of communities to determine for themselves how far, in fact, they are a region, with common needs, possibilities of mutual aid through cooperation, possibilities of social as well as economic self-help in the development of their educational and training facilities. It is extremely valuable, likewise, for School authorities to look into the future, as far as this difficult task is feasible, for those who graduate, as well as for those who fail to graduate, from the secondary school which until recently was the crowning achievement of the public educational system. It is valuable, yet further, because we are now facing the fact that there are many other groups of people besides those who go directly from high school graduation to university. There are the students in vocational options, now being given new prominence and attention in British Columbia; there are the men and women from all walks of life who are showing new interests in upgrading their skills through night classes and part-time courses; and there are the "drop outs" whom a variety of agencies are seeking to draw back into the educational stream.

How far the two-year college, whether city, district, or regional, can develop courses, instruction, and services suitable for all the citizens in this somewhat open territory, remains to be seen. It will depend on good administration, and on teachers with many skills and quite special orientations. It will depend on local citizens, serving their communities not only as School Trustees but in many new capacities, as they may if regional colleges are established and made a vital part of their area.

It is obvious that two-year colleges make altogether new demands on senior teaching institutions. As Dr. Marsh's report indicates, and as American experience is now exemplifying, a new kind of instructor has to be trained and developed - one who is not a high school teacher and is not a university professor, but a regional college instructor in his own right, with special responsibilities and approaches to education and able to create a special teaching "climate". Besides their all-important principals, Colleges will also need administrators, librarians, adult educators and extension directors, service personnel and, above all, counsellors. The Faculty of Education at U.B.C. is keenly aware of these needs and has prepared courses which will help to provide for them, whether in special programmes or at post-graduate levels.

It is for these reasons that this report has been made available in this form. Judging from the requests of students, and from various educational agencies and personnel, it is already evident that this study can serve purposes over and above the special task which brought it into being. It is intended to use it in some of the new courses referred to above, since there is relatively little material as yet with a Canadian frame of reference. The main questionnaires used, and a variety of appendix material, have been included accordingly.

I wish to congratulate Dr. Marsh on the completion of a scholarly, comprehensive, and far-seeing survey. I would like to commend his insight and careful interpretation of the problems which give the report unusual application and usefulness.

Neville V. Scarfe

(Dean, Faculty of Education,
University of British Columbia).

INTRODUCTORY NOTE TO PART I

When a group of School Boards (eventually nine in number) decided to undertake a comprehensive survey of the needs and appropriate specifications for a Regional College to serve Vancouver Island, the Faculty of Education at the University of British Columbia was delighted to sponsor the study and to supply personnel and advice. Not only is a detailed survey of a Regional College constituency essential to its sound development; it is to be hoped, in the present stage of educational planning in the province, that such a study may be of value to other regions and communities contemplating the possibility of two-year Colleges in the future. An Advisory Committee was set up with Dean Scarfe as chairman, to ensure that any necessary assistance would be available to the director of the Survey; and Dr. Denis Smith, who has worked in the field of the two-year college for many years, was appointed as consultant. I am already indebted to Dr. Smith and to Dr. Coolie Verner, another member of this committee, for advice, and expect to be much further indebted before the work is completed.

At an early date, a Coordinating Committee for the School Boards was organized, composed of one representative from each of the participating Boards, with a non-voting Chairman; and the plans and procedures of the Survey were worked out with this group of School Trustees through all its stages. It is a pleasure to acknowledge the ready cooperation and multiple assistance of the members of this Committee over the last fifteen months, without which the project could not possibly have succeeded. I feel that it is entirely proper that their names should be included on the title pages; and I believe they will agree with me in tendering special thanks to Dr. W. Roy MacMillan for his services as chairman, to Mr. Jack Whitlam for his energy and enthusiasm in initiating the Survey, and to Mr. J.W. McPherrin for his efficient secretaryship.

As it has developed, the full study has incorporated four different surveys: an assessment of all available statistical sources permitting forecasting of higher education dimensions - material which was originally opened up by the Chant Commission and the Macdonald Report; a survey of the school-leaving population, particularly at Grade XII (referred to herein as the High School Survey); assessment of employment, occupational and technical trends in the region (referred to herein as the Vocational Needs Survey); and a review of relevant experience in community colleges in the United States and elsewhere. Only parts of these are dealt with in the initial Report which was of necessity principally concerned with the first issue: they are much further utilized in Part II.

For generous response to my requests for material, I am most grateful to the Division of Tests, Standards, and Research of the provincial Department of Education; the Bureau of Economics and Statistics of the provincial Department of Trade and Commerce; the Education Division of the Dominion Bureau of Statistics; the Superintendent of Public Instruction (Community Colleges Branch), Olympia, Washington; the Bureau of Junior College Education, Department of Education, Sacramento, California; and the American Association of Junior Colleges. There will be need to recognize the help of many other people and agencies in the final Report; but I cannot miss this opportunity of acknowledging the cooperation which has already been accorded by so many School Superintendents, principals, teachers, counsellors, adult education directors, and many others - not forgetting parents and pupils - wherever I have gone in studying local situations or searching for relevant information. Whatever may be the difficulties in fashioning the appropriate institutions for higher education, there is no doubt that genuine interest is widespread. I sincerely hope this Report will help to engage it in constructive effort.

September, 1965. L.C.M.

INTRODUCTORY NOTE to Part II

It will be readily apparent that this is more than a localized study confined solely to Vancouver Island as its area of reference. The acceptance of a wide perspective is deliberate. Two-year colleges are being contemplated not only in many parts of British Columbia, but all over Canada, a move which is of the greatest consequence for education, and for the public. The U.B.C. Faculty of Education has sponsored the present survey as a comprehensive study in the hope that in this form it may be of use in the province generally, and perhaps elsewhere.

Part I of this study was directed primarily to establishing the need for a college, i.e., to the factors involved in estimating "student potential". The present report, Part II, is concerned with the nature of a Regional College - a subject which, at least in Canada, has not hitherto been set out in integrated fashion. To achieve this, special attention has been given to the regional concept itself, to the curriculum and the teaching program which is central to the whole idea of a two-year community college, and to the place which technical education holds in this curriculum, in the light of contemporary needs. The course offerings of a college are much too likely to be taken for granted: yet the fact is that each component - academic, technical, and community service - needs a "new look", as well as sympathetic public interest to help the educators. This is sufficient justification, it is hoped, for the extended treatment given to Sections 4, 5, and 6.

Reiteration is perhaps in order that, while Vancouver Island must be envisaged as a region in order to give proper perspective to college planning for any part of the Island, the specific measurements and recommendations in this Report are confined to the Survey Area determined by the nine collaborating School Districts. The social as well as the physical topography of the overall scene is reviewed in detail in the first section of Part I. Further attention is given to it in Section 2 of this Part, in the course of analyzing the best means of serving the constituent communities in the north and central sectors; and, in Section 6, this exploration of the regional idea is completed by discussing the "community development" potentials of a college. It is hoped that no confusion need arise from the necessity of referring, in their appropriate context, to (1) the Island, (2) the Survey Area, and occasionally (3) the "metropolitan area" of Victoria and its adjacent districts.

This Report completes the use of three of the four surveys comprised within this study and originally mentioned in the Introductory Note to Part I (the first being concerned with enrolment trends and estimates of needs). They comprise: the survey of the school-leaving population of the high schools of the area (High School Survey); the assessment of occupational and technical trends in the area (Vocational Needs Survey); and relevant experience on community colleges in the United States and elsewhere (including Britain and eastern Canada). The greater part of the statistical material derived from these sources has been collected in a special Appendix to this part of the Report. (Appendix to Part II, originally issued as a separate Report, incorporated in the present edition). In this, two sets of material have been brought together separately, because of their special interest. One of these is a compilation of statistics, with explanatory notes, providing a factual picture of the most highly-developed junior colleges in the United States, those of California. The other is a collection of materials from a variety of sources which serve to document and illustrate the important subject of programs and curricula. All of this material has been drawn on in formulating the conclusions of Part II, but there are obvious advantages in separating this mass of reference material from the main narrative.

The enormous bibliography which has now been compiled, starting with the "classics" on the two-year college of forty years ago, but including the rapidly growing variety of research studies, descriptive reports, and critical articles which are now characteristic, was not appropriate for inclusion in this Appendix. But it will be utilized for the seminars and instructional courses now being prepared for post-graduate two-year college training, in the Faculty of Education at U.B.C. (referred to in Section 8 of this Report). The confining of acknowledgement footnotes to the few instances of direct quotation will, I hope, call forth more approval than criticism from my readers. I must, however, record my indebtedness to the lively pages of the Junior College Journal, which reflect not only the growing significance of the two-year college in the educational concerns of this continent, and the enthusiasm of its teachers and organizers, but a critical self-examination for which everyone should be grateful because it is not the invariable associate of growth.

I am grateful to a host of persons whom I have consulted personally and by correspondence. Rather than attempting to name them all, I will pay tribute to the spirit I have met everywhere in the course of this undertaking. The invariable response is that every kind of information is available for the asking if it exists at all, and that "we all have much to learn from each other". First met with so encouragingly at Everett College, and in the Department of Junior College Relations at the University of Washington (Seattle), when I started this study two years ago, I encountered it again and again in California at a dozen colleges, and in the university Faculties of Education at Berkeley, Stanford, and U.C.L.A. It is now abundantly apparent at home: everyone able to speak for the new West Kootenay College and for Vancouver City College (which should be called both new and veteran), and those who are devotedly planning to make the Okanagan Regional College a reality, have extended to me cooperation without reserve. I shall be very glad if this Report offers them some return for their generous goodwill.

January, 1966. L.C.M.

Supplementary Note on New Edition

In this new, comprehensive edition which combines the three volumes of the original Reports, there are no changes except to correct a few errors in text and tables, and to collate the two Parts. In the interest of compactness, footnotes have been brought into the main text and identified by brackets. A single combined Summary, covering both Parts and the Appendix materials, replaces the separate Summaries which prefaced each of the original volumes. New letters have been assigned to the Appendices of Part II, to facilitate reference. Major items from the bibliography referred to above are being mimeographed, and a copy of the lists will be supplied on request to any interested reader.

This is an appropriate time to tender grateful thanks to Miss Aileen Llewellyn-Amos, who faithfully typed and retyped the seemingly endless materials that eventually found their final form in this book.

April, 1966. L.C.M.

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SUMMARY OF COMBINED REPORT

(Part I, Part II, and Appendices)

A. The Regional Two-Year College.	Part	Sections
1. The special purpose of a Regional College is to facilitate higher education for many who might otherwise not obtain it: it aims at appropriate combinations of general and technical education, and should not hesitate to be realistically career-oriented. It is neither only a liberal-arts or university-preparatory college, nor only another kind of technical institute: it must offer comprehensive facilities with scope for threefold interconnection: (a) general education, (b) technical instruction, (c) community service courses.	I I II	1 8,12 4
2. Because a Regional two-year College is a new concept, it is essential that its difficulties as well as its potentialities should be understood by students, parents, School Trustees, employers, and the public generally.	II	1,9
3. A Regional College is not justified on quantitative grounds alone (the potential size of enrolment), but by the many kinds of students it can serve, and the variety and appropriateness of the educational services it can offer. In this context, properly constituted counselling facilities are a key-service for an effective College. Adult education also has great potential for assisting the towns and districts of the region and putting their community services to optimum use. The expansion of a Regional College as a local asset will be limited only by public understanding of its possibilities in this regard.	I	12
4. A Regional College can be the paramount centre for local mobilization: but its outlook must be national and international. Its possible contributions in the critical areas of education, vocational preparation, equality of opportunity, and leisure, bring it to the mainstream of contemporary thinking. The future of the Regional College will depend (a) on its willingness and ability to initiate, and (b) on public understanding, both of which should support it as a unique institution, not as an aspirant for university status.	II	6,9
B. Application to a Particular Region (Vancouver Island).		
5. A Regional College is a particularly valuable concept for British Columbia because of (a) mountain topography, (b) low-density settlement patterns, (c) facilitating a coordinated approach to a group of communities, (d) economical use of scarce teaching resources as well as the school-dollar.	I	1,2,8 9,12
6. Vancouver Island is geographically determined as a region, but with highly important qualifications: (a) transportation difficulties; (b) markedly uneven population distribution; (c) special factors in forestry exploitation. There are major differences in the concentrated Greater Victoria area, the secondary centres around Nanaimo, the attenuated pattern of the coastal plain, and the great northern area.	I II	2 2

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	Part	Section
7. The appropriate area for a true Regional College is the whole Island: this is kept in view throughout the report, though its primary investigations relate to the central and northern areas. Since there is no feasible single centre for a completely "commuting" college, (a) residences are essential, (b) travelling services should be developed as a special feature, (c) new concepts such as "weekend commuting" and "weekend courses" are the sort of innovations which are needed.	I II	11 6
8. Because of the scattered distribution of communities in the northern half of the Island, a branch campus between Courtenay and Campbell River is the only effective answer to this part of the location problem. If this principle is accepted, a site for the main campus can be indicated on the basis of the "centre of gravity" (derived from population and distance factors) of the more central communities. The focal centre which comes nearest to equalizing accessibility for the Qualicum-Alberni-Nanaimo-Duncan constellation is approximately 5-10 miles north of Nanaimo. For both the main campus and the branch campus, the actual site should be chosen with size, availability, topographical features and general adequacy as the determining criteria.	II	2
9. It is unrealistic to make daily commuting the sole test of a Regional College: the situation in an area such as California is not comparable. Residences for a sizeable proportion of the student body are essential for both campuses. Student preferences (canvassed in the High School Survey) support acceptance of residences much more than is usually assumed. College buses would be invaluable, and could be developed as a basic feature. In the long view, railway transportation should be given study.	II Appendix	2 F

C. Population Factors and Student Enrolment Potential.

	Part	Section
10. Population growth has been outstanding in recent years notably in British Columbia, but the increase in the higher education age-groups is universal, in Canada and elsewhere. Relevant figures are examined in detail, in provincial perspective, and for the specially-delimited "Survey Area". School enrolment has increased much more than population growth. The Survey Area (excluding the Greater Victoria area) is closely comparative with other regions in B.C. (Okanagan, West Kootenays) which are now proceeding with the establishment of Regional Colleges.	I Appendices	4,5 A,B
11. Enrolments in Grades X-XII, the most immediate "college potential", have increased rapidly, not only from (a) demographic (birth-rate and age-group) factors, added to by immigration, but from (b) increased concern with finishing high-school and the increasing retention rate of the schools.	I Appendix	6 C
12. The college potential is much more complex than the immediate "pool" of high-school graduates, because of (a) recruits from previous years, (b) older and younger persons now upgrading their educational standing, and because (c) account must be taken of high-school leavers who have come through the non-academic options. Furthermore, net as well as gross computation must be applied, to take account of students already going to University.	I Appendices	6,7,10 A,B

	Part	Section
13. When every allowance has been made for these factors, the potential who need and could benefit from a Regional College in the Survey Area are more than sufficient in numbers to support one. The need is urgent enough to recommend the projection of a College for 1967-8. An estimated minimum enrolment of 650 refers to full-time students only, and assumes no reduction in students going to U.B.C., the University of Victoria, and Simon Fraser. A possible maximum in the first year enrolment is closer to 1,200. Part-time students would be additional, and could be very numerous.	I	7,10,11
14. Both the young students and the adult students of the college are likely to have special characteristics. Administration and instructors must be fully alerted to the special importance and needs of older adult students. Counselling with a widened purview of occupational alternatives needs to be developed. Low-income students demand special consideration.	II Appendix	3 E

D. Curriculum.

	Part	Section
15. A four-program comprehensive approach to the basic curriculum, anchored in administrative structure, is proposed: (a) academic program, (b) college program, (c) technical program, (d) developmental program. The differences between this, and the lack of balance characteristic of varied and uneven college histories, are examined at several points. Diplomas for two-year programs are most appropriate for the first three; and intra-mural transferability should be given attention rather than overemphasis on conventional "transfers".	II	3,4 5,7
16. General education as part of the college curriculum should invite initiatives, (a) as an essential ingredient in effecting technical training, (b) to offset the shortcomings of conventional first-year Arts courses, (c) because of the difficulties of specialization which await all university and professional students; (d) because of its relevance for many varieties of adult education, (e) because many students will attend for one year.	II Appendix	4 G(1)
17. Vocational education, while now an issue of pressing concern, is confused both by differing interpretations, and the variety of institutions catering for it. A restatement of the issue is attempted. The suggestions arising from the Vocational Needs survey for the region are examined. An expanded concept of "technician", appropriate for two-year college curriculums, is set forth.	II Appendix	5 G(3-9)
18. A Developmental Program, specially designed for the disadvantaged student, is recommended, as essential (a) to offer opportunities which are denied by the admissions requirements of most higher-education institutions, (b) to provide an appropriate learning experience for students who will otherwise seek unrealistic programs and goals, (c) to permit counsellors to deal constructively with the wide range of abilities the open-door college must expect.	II	3,7
19. The consensus favours relatively small fees. But bursaries and scholarships are likely to be needed far more than at university levels. Free books in ample supply (under appropriate library arrangements) would be one of the most effective subsidies Scholarships to permit promising first-year students to complete their diplomas would be particularly valuable, and industrial and community endowments would be welcome and appropriate contributions.	II	8

	Part	Section
20. The community services arm of the college curriculum has remained largely undeveloped, and has not been systematically analyzed. Its dependence on personnel and financing must be understood. Major areas each need appropriate attention: (a) general education, (b) cultural activities and the arts, (c) public affairs, as well as (d) occupational and vocational auxiliaries. The latter need review to sort out the appropriateness of planned programs rather than ad hoc short courses.	II	6

E. Services, and Development

	Part	Section
21. Since the instruction staff are the critical resource of the college, maximum attention must be given to the conditions which will make teaching rewarding as well as effective. Faculty participation in forming educational policy must be an accepted and continuing objective.	II	8
22. Modern educational facilities require expanded concepts of libraries as "study centres"; teaching aides; encouragement to individual study; community and student-initiated additions to the formal curriculum. The role of (a) lectures and (b) seminars as well as (c) laboratories and workshops.	II	7
23. The components of student guidance need to be generally understood, and carefully distinguished: especially (a) as between instructors and counsellors, and (b) as between (1) advice at admission stages, (2) curriculum selection, (3) vocational orientation, and (4) rating of progress in courses.	II	7
24. Both the sharing provisions of current college financing, and the distribution of costs between the participating communities, will reduce the burden for the local taxpayer to small dimensions. An ample tax base is available. It is important that flexibility should be retained in the direction of the college's total budget to a balanced program, regardless of the varied sources from which revenue derives.	II	8
25. A long-range plan of college construction is essential because of population and enrolment trends. Some features of a full program might have to be postponed, because of the pressures of the opening years; but the necessary personnel should be secured and community contacts made.	II	8
26. Cooperative discussion and working together between architects and educators is essential to produce the special complex of buildings and facilities which the comprehensive curriculum and the open-door college demands.	II	8
27. Liaison with high schools is an important component of community relations which should be developed primarily by counsellors; liaison with community cultural resources should be developed by a Community Service Division, which requires the early appointment of a full-time director; individual and vocational liaison can be particularly developed by Technical Program instructors, with the aid of advisory committees; liaison with the universities is a matter for all appropriate officers and instructors of the college.	II	5,6 8,9

A REGIONAL COLLEGE FOR VANCOUVER ISLAND

PART I

A. BACKGROUND

1. The Need for Regional Colleges.

For every country seeking to raise its sights in education, the most challenging area is the "open territory" between high school and university. For a few, there are clear paths and solid bridges here, leading to satisfying and well-paid occupations. For all too many, there are only doubts and frustrations, the territory a veritable "no man's land". Consider the many possible things that can happen. The young man or woman may leave high school, having reached an age at which school attendance is no longer compulsory, and may find a job. The hard fact to be faced today is that some of them will not find a job. If they do secure employment, however, the work may be a stop-gap, it may be temporary, it may be unskilled with no opportunities of training or advancement. Nevertheless, some jobs lead to others: if a boy is lucky, his employer may give him training and promotion; his first starts might even lead to a career. But "careers" of this chancy and haphazard kind are uncommon. Far more likely is the possibility that a "dead end" will loom up. Either another young worker may be taken on as a replacement, or there are no prospects without further skill or education. The unemployment rolls show all too clearly that the least educated are the most heavily and persistently unemployed. Thus high school has assumed a greater importance in relation to the labour market than in any previous era.

The labour market, or the "occupational ladder", is not the same for boys and girls. The choices for girls have always been far more restricted, even though they have widened rapidly in the twentieth century. Marriage retires many women from the labour market, though the most recent phenomenon is a great extension in the number of married women at work - some because they have to contribute to the family budget, others because their children are grown up or at school. There continues to be more types of work for women than for men which can be undertaken part-time, or embarked upon without long-run or permanent commitment. For most young men at present, however, whatever may be the predictions of the "new leisure" or the short working-life promised by automation, they want education which offers the promise of a career. So too do many young women, whether they are going to be married or not.

The demand is legitimate, and it is realistic. But everyone concerned with civilization will be anxious to add that education must apply to more than a career: it must be a preparation for a full life, for personal fulfilment, for generous and responsible citizenship. Whether this can be provided only by a university degree, or whether university is relevant at all, are now freely debated: there is no simple or even agreed formula as to how to provide "general education" or a "well-rounded education" in the complex, agitated modern world. The mounting demands of technology add heavily to the complexities. Adult education, or "continuing education", is being increasingly recognized as a fundamental rather than a supplement, in the educational system of a modern nation. But whether for career, or preparation for living, or both, it is the "open territory" that stretches out before the high school youth that calls for pathways, planning, and guidance.

Sooner or later, experience shows the need for more education or training, to most young men and women - sometimes for life rather than vocation alone, sometimes for older people, too. Whether the need is revealed too late, is a matter of individual determination on the one hand but of availability of educational resources on the other. As almost every youngster now knows, the "need" for Grade XII completion, or university entrance, or matriculation, seems to loom up at every point. Whether it is justified and appropriate or not is a serious question - fortunately this also is now being subjected to realistic scrutiny - but there is no doubt about the thousands of people, including both younger and older workers, who are working hard, out of school, to attain it. Since only one-fifth to one-quarter of those who start in elementary school complete Grade XII, and less than one-fifth actually get to University. [These are Canadian averages: British Columbia figures are higher. The subject is examined in detail in Appendix C.], the widespread demand for "university entrance standard" is badly out-of-balance, whether judged educationally or vocationally - by citizenship, or by the basic economics of the nation's manpower. Other standards ought to be acceptable, other facilities ought to be developed, for a majority who will not normally seek a university degree. How far are these facts being faced? Developments in government-aided technical training, the expansion of all kinds of night classes, industrial training schemes, correspondence courses, commercial schools, are various parts of the response. But no enthusiasm is greater than that which has been generated by the "Junior College movement". It is best known, of course, in the United States (where the terms "community college" and "two-year college" are now being accorded preference), but there are counterparts in other countries - notably the "County College" movement and the "continued education" facilities in Britain - which offer relevant experience.

A great step forward has been taken in British Columbia in the recent revision of the Public Schools Act which permits groups of cooperating School Boards to go about establishing Regional Colleges to serve their joint territories. The significance of the regional concept is threefold. It suits the mountain topography and low-density pattern of settlement which characterizes this province everywhere outside of its metropolitan centres. It makes for more economic use of the very scarce resources of teachers and teaching facilities, to say nothing of the local taxpayer's money. Most of all, it favours a coordinated approach, one which takes account of the needs and special features of the constituent communities, which can encourage some of the innovations which contemporary higher education needs and can bring forth initiatives in overcoming the obstacles which most regions present. This coordination is all the more necessary, because advances have been made now in other educational provisions; in the Vocational Schools, in the new B.C. Institute of Technology, which provincial and the federal financing have made possible, in the new universities which have sprung from the rapid implementation by the provincial government of some of the major recommendations of the Macdonald Report (on university enrolment trends, but also on regional needs), as well as the work of the Chant Commission and the comprehensive revision which has been applied to the high school options in the later grades. Clearly, if Regional Colleges are to be established, they must take account of all these: they must enhance and complement them, not be unnecessary local duplications. The evidence is, not only here but elsewhere, that the Regional College can be the essential link between them all, that it can also meet some educational needs that are not adequately met in any other way. The two-year general college, of all higher education institutions, has the best chance of recognizing the diversity of educational levels and career choices which this section of the "educational ladder" now presents. It is the purpose of the present Survey, not only to examine these needs in terms of quantitative college enrolment - the potential "constituency" of the College - but to delineate as far as possible the kind of College which will make unique contributions to the region. Part I of this report deals with the first part of the double task.

2. Vancouver Island as a Region.

As a large island - actually the largest in the Pacific Coast area of North America - Vancouver Island is decreed by geography to be a region. But it is a special kind of region, and its characteristics are of major importance in fashioning plans to serve it with a College. While its area is large - about 13,000 square miles, larger than either Belgium or Holland - it is populated in any substantial density only in the south-eastern tip, and the fundamental reason is its mountainous character. A good relief map shows how completely covered with a vast series of peaks and ridges it is, with the mountains rising to great heights along the entire spine of the Island. In the north, the Forbidden Plateau area and some others are still not completely explored. One of the few east-west routes is cut by lake and river across to the Albernis: this route, though now a first-class highway, is dominated by the towering heights of Mount Arrowsmith. Alberni itself is a fortunate port because the long arm of Alberni Inlet cuts through the mountains for more than twenty miles east and south: Alberni in consequence occupies a location which is actually beyond the measured centre (in terms of width) of the Island. Another great penetration into the core of the Island, the Cowichan (lake and river) valley, permitted the early opening-up of this area and makes Duncan an important route junction, but has not yet eventuated in a complete highway system to the east coast.

Virtually all the west coast of the Island is characterized by mountains descending abruptly to the sea, a series of fiords and deep inlets suggestive of Norway, with very small segments of coastal plain. Along the coast, arable stretches are scarce, the most significant exception being the Tofino-Ucluelet area to the south-west in latitudes slightly lower than those of Alberni and Nanaimo, but with access to them only by a winding, precipitous mountain road, originally cut through for logging and only recently open to general traffic, which fully exhibits the difficult nature of the terrain of this part of the Island. Voyages and settlements came early to this area (forty miles north is Nootka Sound) only because these small footholds of territory were accessible by sea. Wildly beautiful as is the scenery in these tiny centres, they are essentially remote, they face the violent storms of the unchecked Pacific, rolling in from thousands of miles, and the rainfall is heavy, frequently over 100 inches a year as compared with 40-60 inches on the eastern coast.

Thus while the Island is 282 miles long, varying from 50 to 60 miles in width (except at the northern and southern tips), its population is heavily concentrated in a very few sectors. The pattern of settlements must be examined very carefully if it is to be distinguished from the great spread of territory which appears on an outline map. It is for this reason that advantage has been taken of the excellent demographic map of British Columbia prepared by the UBC Department of Geography. The two sections adapted from this for the present Report show the total Island in relation to the mainland of British Columbia (Fig.1), and the most populated sector in larger scale (Fig.2).

A basic reason for the attenuated settlements which people the eastern coast is the coastal plain which stretches with few interruptions from Victoria northwards to Campbell River. Its average width is about 8 miles, but it varies from about 13 miles to only 1 mile, and it virtually disappears where the "Malahat" pass overlooks the great ocean gulf of the Saanich Inlet. This plain permits agriculture: it not only enjoys a long frost-free season, but benefits from the advantages of mild winters. Good soils and these other favourable features are at their best in the Duncan area, which accordingly has some of the longest history of farming development.

Obviously the fortunate existence of this coastal plain has facilitated transportation routes, and it is of the greatest importance that the major highway, continuously improved from early wagon trails over the years until it is now a first-class scenic motor road, proceeds only along this strip of coast. A valuable railway-line also follows this route. The major exception to the north-south pattern is the excellent highway connection to the Albernis, already mentioned, turning inland from the coast route at Parksville, crossing the mountain spine by easy stages through Cathedral Grove and alongside Cameron Lake. Again a railway, this spur built in 1911, follows this route.

There is a third reason for the population pattern, however, and this is the proximity to the mainland and particularly the metropolitan centre of the province, Vancouver. The facts clearly depicted in Fig.2 are of critical significance in understanding this whole sector of Canada. Vancouver is where it is, not only because of a magnificent natural harbour, but because it is virtually the only major inlet with a sizeable hinterland permitting both agricultural cultivation and residential development. Indeed, the international boundary cuts across part of the great alluvial plain laid down by "the mighty Fraser", so that is is shared by other adjacent communities in the United States. Also because of the international boundary, it is sometimes

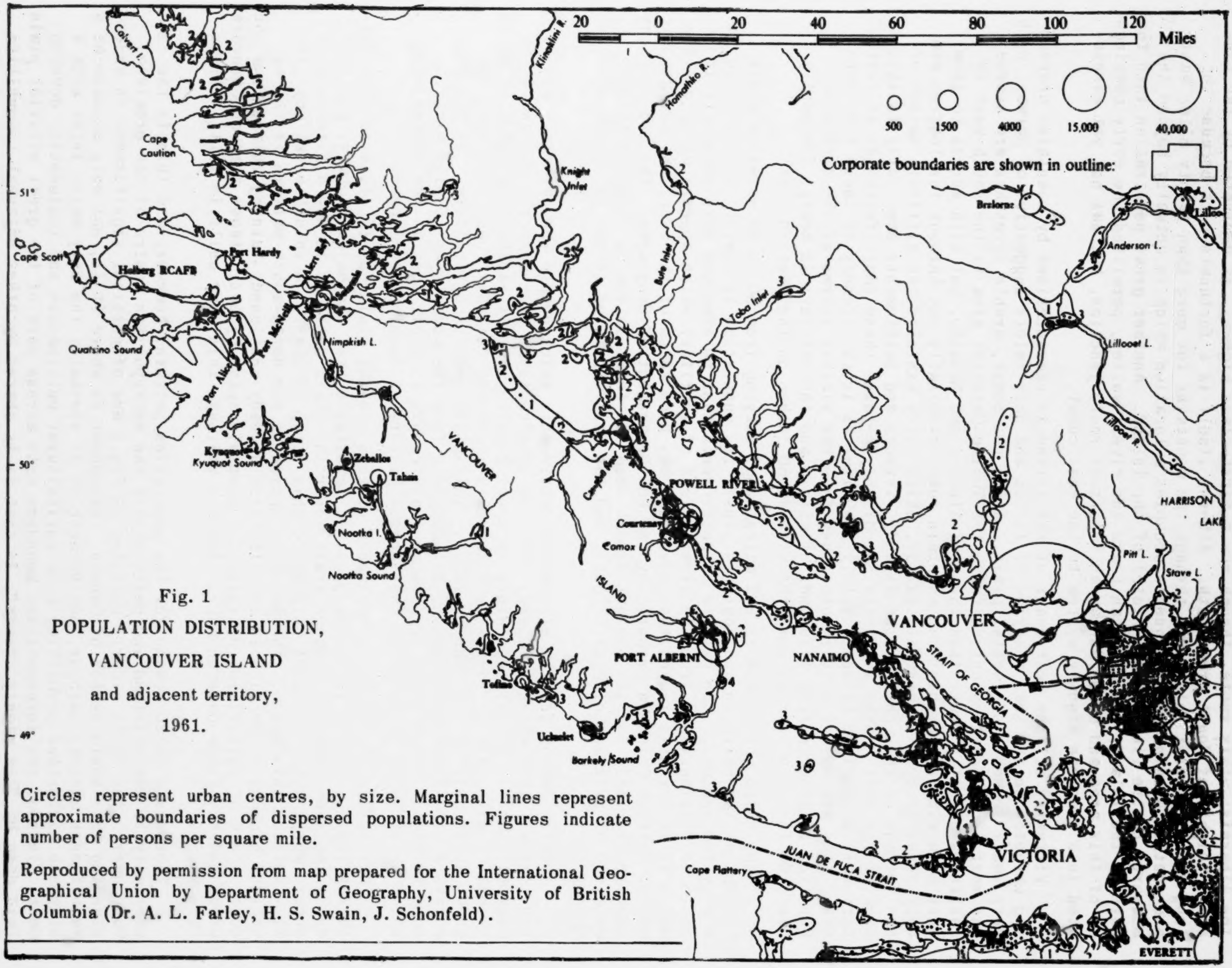

20
0
20
40
60
80
100
120
Miles
500
1500
4000
15,000
40,000
Corporate boundaries are shown in outline:
Calvert I.
Cape Caution
Cape Scott
Holberg RCAFB
Port Hardy
Alert Bay
Port McNeill
Quatsino Sound
Port Alice
Nimpkish L.
Kyuquot
Kyuquot Sound
Zeballos
Tahsis
Nootka I.
Nootka Sound
VANCOUVER
ISLAND
Klinaklini R.
Knight Inlet
Homathko R.
Bute Inlet
Toba Inlet
Campbell River
POWELL RIVER
Courtenay
Comox
PORT ALBERNI
Tofino
Ucluelet
Barkely Sound
NANAIMO
VANCOUVER
STRAIT OF GEORGIA
VICTORIA
JUAN DE FUCA STRAIT
Cape Flattery
Bralorne
Lillooet
Anderson L.
Lillooet L.
Lillooet R.
HARRISON LAKE
Pitt L.
Stave L.
EVERETT
51°
50°
49°

Fig. 1

POPULATION DISTRIBUTION,

VANCOUVER ISLAND

and adjacent territory,

1961.

Circles represent urban centres, by size. Marginal lines represent approximate boundaries of dispersed populations. Figures indicate number of persons per square mile.

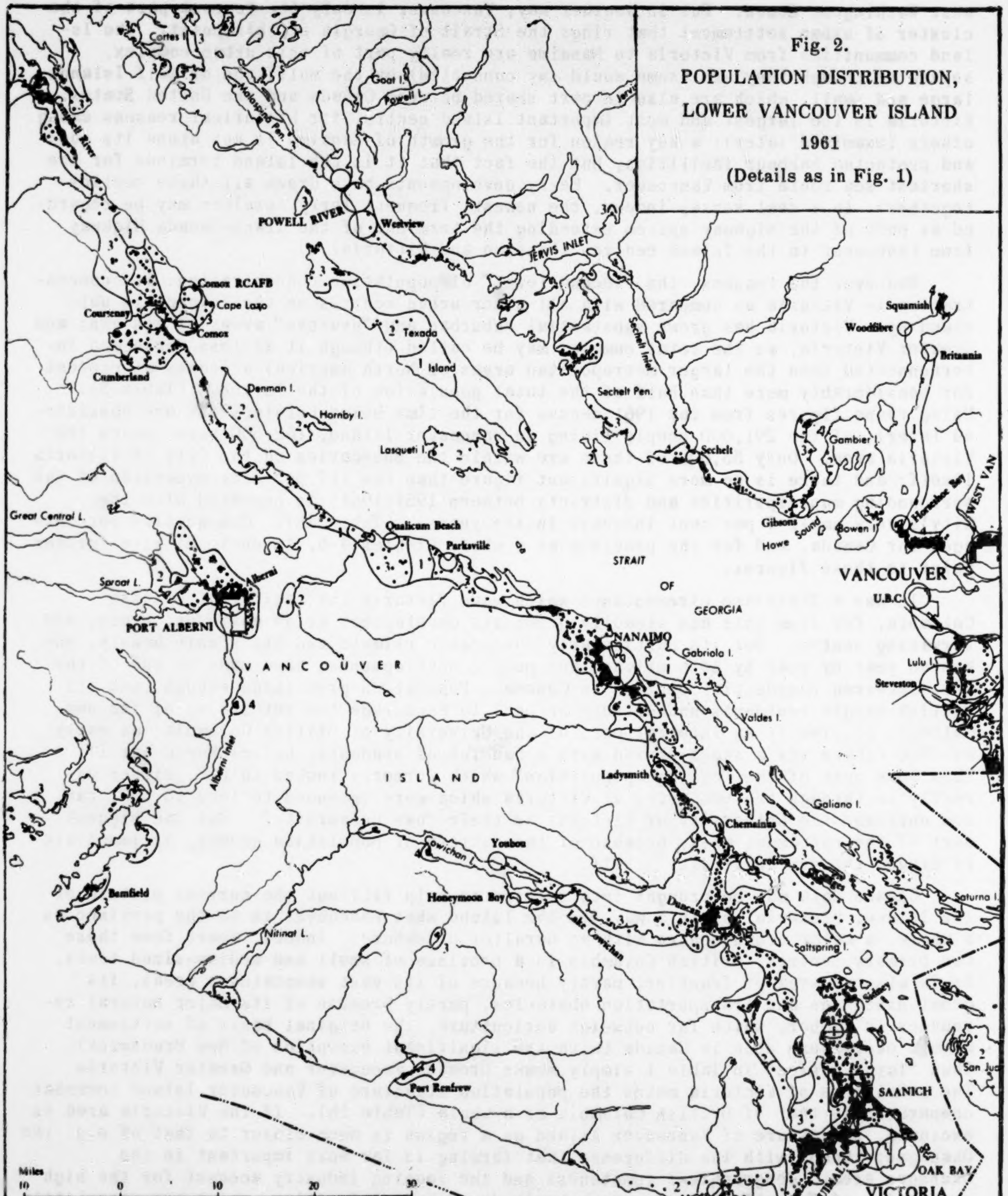
Reproduced by permission from map prepared for the International Geographical Union by Department of Geography, University of British Columbia (Dr. A. L. Farley, H. S. Swain, J. Schonfeld).

forgotten how comparable, in the broad geographical sense, are the centres of northwest Washington State. Put in another way, Vancouver is only the topmost part of the cluster of urban settlement that rings the Strait of Georgia at this point. The Island communities from Victoria to Nanaimo are really part of this urban complex, separated though they are (some would say connected) by the multitude of Gulf Islands, large and small, which are also in part shared between Canada and the United States. Victoria is the largest and most important Island centre, for historical reasons among others (examined later); a key reason for the growth of Nanaimo is not alone its good and protected harbour facilities, but the fact that it is the Island terminus for the shortest sea route from Vancouver. Ferry developments have drawn all these centres together: in a real sense, indeed, the newest, frequent ferry services may be regarded as part of the highway system extending the terminus of the Trans-Canada Highway from Vancouver to the Island centres (Nanaimo and Victoria).

Whatever the reasons, the "second level" of population concentration, its concentration in Victoria as compared with all other urban centres on the Island, is outstanding. Victoria has grown substantial suburban and "exurban" areas of its own; and Greater Victoria, as the total complex may be called (though it is less dense and interconnected than the larger metropolitan areas of North America) accounts at present for considerably more than half of the total population of the Island. (Table 3). Using round figures from the 1961 census for the time being (projections are considered later), of the 291,000 people living on Vancouver Island, 162,500 have chosen the Victoria area. Only 55,000 of these are within the boundaries of the City of Victoria itself; and there is no more significant figure than the 117 per cent expansion of the surrounding municipalities and districts between 1951-1961, as compared with the City's very small 7 per cent increase in ten years. (Table 4b). Comparative percentages for Canada, and for the province as a whole (Tables 4-6, Appendix B) give further point to these figures.

It was a fortunate circumstance which made Victoria the capital of British Columbia, for from this has steadily grown its development as an entrepôt, trade, and servicing centre. But its particularly favourable climate and its scenic beauty, enhanced year by year by both private and public developments, have made it one of the most favoured residential centres in Canada. Population grew large enough (and its British-origin residents undoubtedly helped) to encourage the setting up of its own College, originally an integral part of the University of British Columbia, as early as 1920 (there was a short period with a handful of students, before World War I). Thus some part of the "college population" which formerly looked to UBC, either directly or through the two years at Victoria which were intended to lead to UBC, can now envisage the University of Victoria as their "own University". But the biggest part of the catchment area, because of the pattern of population growth, is immediately around the new university itself.

Census data may be brought into service to help fill out the current picture of the Island, Victoria is, in a way, to the Island what Vancouver is to the province as a whole, a major urban centre with no parallel elsewhere. Indeed, apart from these two primary centres, British Columbia is a province of small and medium-sized towns. It is also an area of frontier, partly because of its vast mountainous areas, its great distances and transportation obstacles, partly because of its major natural resources in timber, which far outweigh agriculture, the original basis of settlement almost everywhere else in Canada (with the significant exception of New Brunswick). Thus "large cities" in Table 1 simply means Greater Vancouver and Greater Victoria. The prominence of Victoria makes the population structure of Vancouver Island somewhat comparable to that of British Columbia as a whole (Table 1b). If the Victoria area is excluded, the nature of Vancouver Island as a region is much closer to that of e.g. the Okanagan; though with the difference that farming is far more important in the Okanagan area. Geographical remoteness and the logging industry account for the high proportion of "rural" areas, more properly described as frontier, which are very little if at all based on agriculture. Even including Victoria, nearly 30 per cent of the Island population is in these frontier areas; excluding the Greater Victoria concentration at the southermost tip would raise the percentage to more like 56 per cent.



Cortes I.
Goat I.
Powell L.
Jervis
POWELL RIVER
Westview
JERVIS INLET
Comox RCAFB
Cape Lazo
Courtenay
Comox
Cumberland
Texada
Island
Denman I.
Hornby I.
Lasqueti I.
Squamish
Woodfibre
Britannia
Sechelt Pen.
Sechelt
Gambier I.
Gibsons
Howe Sound
Bowen I.
Horseshoe Bay
WEST VAN
Great Central L.
Qualicum Beach
Parksville
Sproat L.
Alberni
PORT ALBERNI
STRAIT
OF
GEORGIA
VANCOUVER
U.B.C.
NANAIMO
Gabriola I.
Lulu I.
Steveston
VANCOUVER
Valdes I.
ISLAND
Alberni Inlet
Ladysmith
Galiano I.
Chemainus
Crofton
Youbou
Cowichan L.
Honeymoon Bay
Duncan
Saturna I.
Saltspring I.
Bamfield
Nitinat L.
Sidney
San Juan
Port Renfrew
SAANICH
OAK BAY
VICTORIA
ESQUIMALT
Sooke
Beechey Hd.
Miles
10
0
10
20
30

Fig. 2.

POPULATION DISTRIBUTION, LOWER VANCOUVER ISLAND 1961

(Details as in Fig. 1)

Against this background, an enumeration of all the urban centres of the Island, and those of the Survey Area in particular, may now be made (Table 2). To assist in the analysis of the region, the urban centres of the Survey Area have been grouped into three "sectors" (described as northern, central, and southern). They should not be regarded as having any standardized significance, or as prejudging the issue of college location, and other groupings are used at other points. An effective picture of these facts is really only presented in Fig.1 (the population distribution map) but the summaries are helpful, and they are further enhanced by comparing density of settlement in relation to area.

It is clear that, in the Survey Area, the central communities and notably Nanaimo have the largest cluster of population. Nanaimo and Duncan alone approach any substantial urban density, though both are relatively light compared with Victoria. Even (Greater) Victoria, however, with a distinctive urban density (3,331 to the square mile) is far less urbanized than Vancouver. The "northern sector", stretching more than half the Island's total length beyond Courtenay, is a vast territory with a small population. Taken together, it is able to aggregate a considerably larger total than the Cowichan-Duncan area, but the contrast in densities is extreme. If Ladysmith were considered "tributary" to Nanaimo rather than Duncan, which it may be from certain viewpoints, the disproportion between the sectors becomes even greater. The central "sector" obviously will be easier to serve than the rest. But, apart from this, there is no simple solution to the problems of finding a centre or educational base appropriate for all the communities of the populated Survey Area. In the southern part, a "centre of gravity" location applied without any consideration of terrain or topography would be at the head of the Cowichan valley, a completely impractical site because it is not in fact equidistant from the Albernis, Nanaimo, and Duncan by actual transportation routes, whatever it may be "as the crow flies". It would be a hardy crow indeed who could fly the mountain barriers which interpose themselves between these centres! It is further apparent that almost any site on the lower third of the Island is too far away for effective commuting from Courtenay and Comox, even more so for Campbell River; just as it is equally apparent that it is unreasonable to assume Victoria can meet all college needs if "college needs" include any quota of commuting from some or all of the central and northern communities.

In sum, this is a region which must be understood, and must be analyzed carefully from all angles, before any pronouncement is made on the location of a Regional College. Whether it needs a college at all depends first on an assessment of all the relevant factors for the total communities as a group. It being understood that the Survey Area will require further consideration in terms of sub-areas when the time comes, the first task is therefore to review its characteristics, its population and educational trends, and its "college potential". A Regional College, fortunately, is a flexible concept. What is clear is that it must serve a region, not a single town or district, and its facilities must be planned accordingly. Vancouver Island as a region presents some formidable obstacles to easy prescription. They can be overcome by cooperative working together, and by informed and realistic foresight. Time spent on a forthright appraisal of these realities will not be time wasted, if it makes clearer how a first-class Regional College for the Island must operate.

3. History and the Economic Base.

It is not incumbent on this Report to write a history of the Island, but history is part of the perspective against which economic and indeed educational development must be understood. A simple summary is therefore in order. [This material is partly drawn from the thesis A Regional Study of Welfare Measurements: Vancouver Island, completed as a Master of Social Work thesis by Robert Cumming, Anna Freyman, Grace Hollick-Kenyon and Janet Macdonald under direction of the present writer in 1964-5. Their contribution is hereby gratefully acknowledged.] Four periods may be characterized, of which the first, the longest and most intermittent, is the "pre-settlement" era. The fourth, the contemporary era, may well require a fifth period dating from the fifties. (All of this, of course, is from the western point of view. Indian settle-

Table 1. Nature of the Region: Degree of Urbanization, and Frontier Areas

(As at 1961)

a. Population Totals

Type of area	Vancouver Island	Okanagan Region	Rest of B.C.	B.C. Totals
Large cities (more than 100,000	138,700	-	729,100	867,800
Medium-sized cities (10,000 to 30,000)	34,200	38,400	80,500	153,100
Small towns: (1,000-10,000)	24,800	9,600	126,900	161,300
Rural non-farming, including frontier areas	85,300	30,000	254,100	369,400
Farming Areas	7,600	16,600	53,300	77,500
Total Populations	290,800	94,600	1,239,700	1,629,100

b. Proportions (P.C.)

Type of area	Vancouver Island	Okanagan Region	Rest of B.C.	B.C. Totals
Large cities (more than 100,000)	47.8	-	58.6	53.3
Medium-sized cities (10,000- 30,000)	11.8	40.6	6.5	9.4
Small towns: (1,000-10,000)	8.5	10.2	10.2	9.8
Rural non-farming, including frontier areas	29.3	31.7	20.4	22.7
Farming areas	2.6	17.5	4.3	4.8
Total	100	100	100	100

Source: Adapted from Census 1961 data.

ments have a long and continuous history, and their story in each period differs fundamentally from the white man's).

(1) The first period is a long drawn-out era of discovery and exploration, particularly immense sea-voyages, some of which must have seemed at the other end of the earth from their home bases. A series of maps during the 17th and 18th centuries show how difficult and how incomplete this exploration was: it was a long time before it was established that this part of the land was an island at all. Russian voyagers came from north and west, extending eventually as far as California. Spaniards came up from their Latin-American base as well as Europe; British came half-way around the world. Often fog-bound and storm-wracked, the coast must have seemed as remote as Africa, and far less hospitable than the West Indies. Settlement was not in the minds of these voyagers, even when their missions were partly military. Captain Cook, one of the most famous participants, in the long search for the "North-West Passage" visited Friendly Cove in 1777 and set up the trade in sea-otter pelts. By the end of the eighteenth century, Nootka (200 miles up the coast from the Victoria of today) was well known as a fur-trading post. The Hudson's Bay Traders, a private company, were the principal operators in the territory, with a British charter and a series of forts or "posts" as far down the coast as the Columbia river, in what is now Oregon.

In 1789, two ships were dispatched from Spain with orders to establish a colony. Two British trading ships were seized and the crew taken as prisoners: this was the "Nootka incident", which caused consternation in Britain and Spain. By the time settlement was arrived at, in 1790 by the Nootka Convention, the political and economic aspects of the situation seemed again to have taken precedence over any plans to establish a colony; and Nootka continued to exist primarily as a fur-trading post.

(2) The second era, of the first settlements, does not begin until well into the nineteenth century. The Hudson's Bay Company sought settlers to take up residence, and the location was the southern tip of Vancouver Island. A new western headquarters was going to be needed, for the company already anticipated the loss of Astoria and other bases in consequence of the settlement in the Oregon Boundary dispute. Fort Victoria was thus born, in 1843: it was said to have been "built with blankets", for the Indians employed in building the stockade were paid one blanket for every forty stakes. Six years later, the whole Island was granted to the Hudson's Bay Company, on the condition that the Company would assume responsibility for establishing a British Colony. In 1851, James Douglas was appointed governor, to be assisted by a Council of three members. The population at this time was less than 200, and initially all of them were connected with the Company. There was little official business, and the only revenue was derived from liquor licences. A few farms were gradually established, near Victoria, in Sooke and on the Saanich penninsula.

Agricultural settlements, mostly on a pioneer basis, continued for a decade or more. The first white settlers moved into the Cowichan Valley in 1858; an eventful date for Duncan was 1862, when a hundred settlers arrived, and began the agricultural development which has been the staple of this area ever since; some forestry was also initiated at the same time. The Comox valley, a hundred miles further north, was also entered by settlers in 1862. Nanaimo, with Ladysmith, received its first impetus more than a decade earlier, for coal was discovered and the forties and fifties saw the influx of English, Welsh, and Scottish miners, who gave their special quality to the town which still survives today.

For a while, coal as an industrial stimulus was eclipsed by the gold rush: the great date was 1858, when gold seekers from all sources poured into the Fraser Valley and by the Cariboo routes to Barkerville. Victoria benefitted most, from the first influx, for it was the main port, accessible from San Francisco, and miners, prospectors, and traders, Australians and Californians among them, swarmed there seeking supplies, as well as means of penetrating the mountain areas of the mainland. Vancouver as a port hardly existed: New Westminster was the established mainland centre. Victoria basked in a period of prosperity: wharves, hotels, and stores were built; money was voted for streets, water supply, and schools. In 1862, when it was incorporated as a city, Victoria boasted 1,500 buildings.

In 1861, the first sawmill was built at Port Alberni: the accessibility of the port and the wonderful timber of this part of the Island attracted attention at first, as elsewhere in Canada, not for pulp and paper so much as for lumber and spars for ships. By 1863, with its advantage of West-coast access, Port Alberni was already a centre for lumber export: with no railway connection (till 1911), however, its future was uncertain. The last decades of the century were years of slow growth, and remoteness reappeared as one of the obstacles. Sea transport was vital: railways were ardently desired. The Canadian Pacific Railway did not complete its trans-Canada links till 1886, and it was only in 1866 that the Island, a more or less independent unit since 1850, was united with the mainland neighbour-colony of "British Columbia". Victoria, which had already been the capital of the Vancouver Island colony since 1868, remained as the capital of the new province.

(3) The third era, inaugurated as everywhere else in the western world by the eruption of World War I and its aftermath, was a thirty-year period of ups and downs, showing only a few of the developments presaging its later industrial future. Immediately the war drained off much of the manpower from farming and other "colonies", as it did throughout B.C., though it also created new demands for lumber, fish,

minerals and such farm products as were available. After the war came, the hectic boom of the early 20's and its subsequent collapse, but emigration from the British Isles resumed. Movement was heaviest to the prairies: small but important parts of the post-war emigration and veteran settlements came to a few Island centres. In 1918 a pulp mill was constructed at Port Alice, far up in the northern tip, again utilizing the water transport facilities (through Neroutsos Inlet) to the west coast, and unlinked by road or rail to the east. In the same year a paper mill was built in Victoria. These lone mills comprised all of Vancouver Island's pulp and paper industry during this period.

Table 2. Nature of the Region: Communities, Sub-Areas, and Comparative Population Densities

(As at 1961)

School District	Population (1961 census)	Area (square miles)	Density (population per square mile)
Courtenay	17,512	628	27.9
Campbell River	10,573	5,259	2.0
Alert Bay, Quatsino	7,596	8,484	0.9
Northern Sector	35,681	14,371	2.5
Nanaimo	27,373	490	55.8
Alberni	22,094	715	30.9
Qualicum	5,073	285	17.8
Central Sector	54,540	1,490	36.6
Ladysmith	7,655	177	43.2
Cowichan	15,491	290	53.5
Lake Cowichan	5,568	1,123	5.0
Southern Sector	28,714	1,590	18.1
Greater Victoria	129,916	39	3,331.2 *
Sooke	14,110	664	21.2
Saanich	13,873	69	200.0
Victoria Area	159,489	772	206.6
Total Survey Area plus Greater Victoria	278,424	18,223	15.3

Source: Adapted from Census 1961 and Bureau of Economics and Statistics (Victoria) data.

* Comparative figures for the City of Vancouver, and the Greater Vancouver Area as an aggregate (387,800 and 766,500 population in 1961), are 7914.2 and 1344.7 persons per square mile.

(4) It is the last twenty years which have seen developments eclipsing all previous ones. The population has doubled since 1941. In the pre-war era, it was thirty-five years before this was accomplished, from the total of about 75,000 in 1906 to 150,000 in 1941. Forestry rapidly accomplished complete dominance over all other activities in the economy of the Island. By 1963 the amount of timber cut was one-third of the total for the province. Sawmilling, along with lumbering, retained its importance, in terms of aggregate produce, and has supported hundreds of firms, large and small, but the pulp and paper industry registered the most phenomenal growth. Four

great pulp mills, the giants among the manufacturing activities of the Island, were located at Harmac (near Nanaimo), Port Alberni, Crofton (near Duncan), and Duncan Bay (near Campbell River). The location of a mill, as for example that at Crofton as late as 1955-6, is a major event because of its impact on construction, auxiliary services and employment in the favoured area: this continues to be true, as the activity and interest in the wake of the Gold River development shows today. Company amalgamations and "vertical integration" of processes and products (logging, pulp, paper production, plywood and veneer products, etc.) have stabilized operations substantially, and the comparison with the haphazard and often short-sighted ventures of the earlier years is a welcome one. Intermittent and wasteful logging has also given way to the development of sustained-yield management and greater control of forest licences. On the Island, the "forest industry" is now king, though neither the differences between its components nor its impact on the social structure of the region, are always fully understood. There is a vast difference between the employment-capacity and the technology of the great plants, and the varied range of sawmills, "small" loggers, planing mills, shingle mills, boat yards, etc. And the industries have had little or no concern with planned housing and residential facilities until very recently. The Kitimat approach to town-planning, now being emulated at Gold River with provincial support, is a far cry from the hand-to-mouth clearing of streets and building-lots from the bush which shows itself at Crofton, Duncan Bay, Chemainus, and many other centres. There are many thriving towns, but how far they are well-balanced and well-equipped communities is another matter.

There are of course other industries, and all of these have expanded in the contemporary era. Fishing is a major activity, particularly the salmon fisheries, though herring and halibut are also important. It is noteworthy that most of the processing is still done at mainland plants. Coal mining continues, but has greatly declined in importance. The non-metallics (sand, gravel, limestone, clay used for bricks, and cement) probably account for more today. The cement plant at Bamberton on Saanich Inlet is particularly important. Other manufacturing is all fairly small-scale. The prime developments are in wholesale and retail trade and the service industries though these are heavily concentrated in the larger urban centres, most of all Victoria, Nanaimo and the Albernis. The pattern, like that of the banks and other financial institutions, is very much that of branch development from headquarters in Vancouver, or even eastern Canada. The tourist industries, more recently linked very closely to highway and ferry improvements, have expanded ubiquitously: they are perhaps the most obvious sign of the new prosperity which the Island has been enjoying.

Agriculture rates highly within the provincial context partly because mainland British Columbia has limited agricultural areas (notably the Fraser Valley and the Okanagan). Farms tend to be small and specialized; general farms, on which there is a mixture of crops and livestock, are more apt to be found in outlying areas, including some of the Gulf Islands, and the Sooke territory. On the other hand, dairy farms are located near urban centres, especially Victoria, Nanaimo, Duncan and Courtenay, because of the importance of a consumers' market in close proximity to the source of supply. The number of persons engaged in farming has decreased remarkably - 20 per cent between 1951 and 1961, for example, though the comparable figure for the province as a whole was closer to 30 per cent. Soil and climate are favourable, but the marginal farm gives way continually to large-scale developments. As elsewhere also, great tracts in the vicinity of the larger centres are being subdivided for residential development, shopping centres, and small plants.

In sum, therefore, Vancouver Island has been heavily influenced by the forest industries, far more than most other areas of Canada. It is still fundamentally a forest area: 3,900,000 out of its 8,300,000 acres hold mature and merchantable timber; and more than 6,000,000 acres are considered productive; and more than half of the Island is now "managed forest". The contrast between the urbanizing south-eastern sector and the vast wilderness areas of the rest of the Island is striking. New industries of the giant type have the greatest impact, economically, and in terms of population influx (including school enrolment): in the absence of a coordinated plan of regional development, this may make for instability, or at least unpredictability, whatever its results in increased overall production. Other facts which must not be ignored are the dependence on overseas markets (U.S. sources for pulp, world sources for lumber, with special examples such as the iron ore from Zeballos, all of which goes to Japan), and the extent of mainland control (pulp and paper, power and utilities, banks, merchandising, etc.). Economically speaking, this is neither a self-sufficient region nor one which is developing in compact or integrated fashion. Geographically, it is not served by one "natural" centre. Nanaimo comes closest to this, principally however because it has the most direct links with Vancouver: but it is far down within the southern half of the Island. Victoria, by reason of its governmental functions, is an important centre in its own right, and it is now developing rapidly in every way as a small-scale metropolitan centre. But there is a marked difference between the urban character of the Victoria "sub-region", and the strung-out centres of the rest of the Island. Highway, water, and air-transport development permit it to serve the Island in many ways, but neither Victoria nor Nanaimo nor any other major town occupies a logical, central location for the Island as a whole.

B. LOOKING AHEAD: BASES FOR PREDICTION

4. Population Trends.

In recent years, several estimates have been made of population trends in British Columbia in the next decade and beyond. Some of the major ones are summarized below. While there is a wide range of variation, they agree on one point: that rapid expansion must be anticipated. It is important to remember that population growth in British Columbia depends not on natural increase alone, but on a large and growing amount of immigration. Schools are particularly aware of this, and more recently colleges and universities; the evidence is widespread. Another factor which injects unpredictability into British Columbia forecasting is the great impact of any new pulp-and-paper plant, aluminum plant, hydro-electric development project, or large-scale logging operation. In several parts of the province, new transportation facilities, notably modern highways and ferry services, may make for rapid local changes.

Some Projections of British Columbia Population to 1975

(Figures to nearest thousand)

Source	1965	1970	1975
Gordon Commission: B.C. Government Submission (1955)	1,725,000	1,975,000	2,278,000
Bureau of Economics and Statistics (1964)	1,782,000	2,050,000	2,370,000
Chant Commission on Education; lowest of three estimates (1960) also Macdonald Report (1962)	1,964,000	2,333,000	2,771,000

The difficulty of estimating far ahead is at once evident from the figures assembled here. The Gordon Commission figures are now recognized as underestimates (the actual total for 1955 was 1,342,000, compared with the estimate of 1,305,000); but the Chant Commission "high" estimates (not quoted above), which assume a continuation of the growth rate of the years 1956-1958, would place the 1971 total as high as 2,948,000. The revised estimates of the provincial Bureau of Economics and Statistics, which are closely related to known facts of current age-distribution (the data most relevant to school enrolment) are to be preferred, and these suggest that British Columbia will be well over the 2,000,000 mark within the next four years. This would give a total population for Vancouver Island of close to 370,000 by 1970, and well over 150,000 for the Survey Area by this time. Ten years from now, this could well rise to 175,000 or 200,000 in the Survey Area alone, granted a number of favourable developments in transportation, regional planning, and the location of new industires.

While population increases are impressive, and there is little doubt of their upward trend, they are not a sufficient guide to the dimensions of school enrolment. The number of children requiring schools and education may be very much larger than population percentages might suggest. On this matter, the figures compiled for a sample period of five years, (1956-1961) for the Survey Area and for comparative areas (Table 13) are most revealing. Changes in school enrolment (all grades from kindergarten to a few in Grade XIII) may be very commonly twice as great as increases in the general population, and they can be nearer three times as great in some areas (e.g. Nanaimo, the Albernis), or greater still in the north (Courtenay - Campbell River). A comparison of trends in the birth-rate and in total school enrolments, as in Table 11 (Appendix B), points this up in another way.

In the five-year period 1956-1961, the British Columbia population increased by more than one-sixth (16.8 per cent). Vancouver Island did not keep pace with this formidable increase, but nevertheless grew rapidly to become one-seventh larger than its population of only five years before. The Survey Area as a whole added 12.6 per cent to its population, that is, grew by one-eighth, but the figures for the Nanaimo, Alberni and the Cowichan School Districts were over 17 per cent, exceeding slightly the provincial average. The residential explosion was most pronounced of all in the outer areas of the "metropolitan" southern tip, including Sooke and Saanich: there is little doubt that the radical change in the Greater Victoria pattern fully justifies the transformation of the former College into the new University of Victoria which has now taken place.

What happened to the schools in this period? Almost everywhere they added as much as one-third to their original numbers, in the space of five years. The figures for the Survey Area in the sample period are 33.3 per cent exactly, comparing with 33.7 for the province as a whole. The expansion is noticeably larger in the northern and central "sectors", largest of all in the Nanaimo district, where expansion reached 42.6 per cent, greater than anywhere else except Sooke, and certainly the largest in point of actual number of pupils. In the same period, the Albernis and Campbell River districts also experienced abnormally large demands on their schools.

This is only one five-year period: the most recent five years (1961-1965) have been a little different. The evidence is that there has been a slackening in the "baby boom" since about 1960, and something of a plateau has been reached, which provides some respite in the unprecedented elementary-school pressure which has beset School Boards in recent years. In the late fifties, school populations were increasing at the rate of nearly 8 per cent every year, whereas in the sixties the rate has been closer to 6 per cent a year. (See Table 14). It is apparent from any extensive compilation, such as those of Tables 13 and 14, that account must always be taken of differences between different local areas. Nevertheless, the close correspondence in the experience of the Survey Area, the Island as a whole, and the total province is remarkable (Table 14), and the main point is clear: population expansion immediately involves the school system, yet it is only the beginning in planning ahead for college needs.

Educational demands now have new dimensions, and there are several variables which have to be taken into account. The plan of this Report is to follow these out with two dates in mind: 1965, because it is an inter-censal year, and a benchmark used in many similar studies, but also 1967 - the school year starting two years from now. There are two reasons which justify this. First, experience has demonstrated that it takes a minimum of two years to establish a College, if this period includes the necessary canvassing of the public required by law, as well as all the preparations in actual building, staffing, and organizing of curriculum. The second is a sense of urgency. As the final evidence shows, two years may be the longest this region can afford to wait for the vital addition to its educational resources a College can provide.

5. School Enrolments: Provincial Perspective.

Estimates looking to future school enrolment at least have a good base from which to start, for several reasons. To begin with, age-distribution statistics, which constitutes the best material for demographic projections, are available for each date in liberal quantity. Secondly, the school authorities, from the provincial Department of Education down to individual schools, keep in review the records of actual enrolments at all grades. Thirdly, there have been close examinations of this kind of material, notably by the Chant Commission, and more recently by the collaborators in the Macdonald Report with special reference to university students. Finally, this survey itself provides some original and supplementary data, from the special Grade XII review and from School Board records. Without going over all this in detail (tables are relegated to Appendix B), the main features, applying to British Columbia as a whole, should first be noted. Against these trends, the Vancouver Island and Survey Area projections can then be set in perspective.

Fundamental information for all school planning calculations is the age-composition of the population. Every parent, every taxpayer, every School Board trustee now knows the significance of the "baby boom" which occurred in the years following the end of the war. Each succeeding term, from Grade I on, brings an older group of these children closer to high school, and eventually they reach Grades X-XII. At this point the prospects of high school graduation and university entrance loom large. If university is not feasible, the various alternatives - on-the-job training, Vocational School, Business College, Army training, the Institute of Technology, and of course the new vocational options in high school, now become hard realities and choices to be faced.

If the age group 20-24 be taken as the section of the population most likely to contain the college potential, the figures for British Columbia are impressive. Aggregating 95,200 in 1961, they rose to 110,500 in 1965, and the prospects are for 156,000 in 1970 and 187,500 in 1975. Approximately half of these are young men, but the proportions of men are rising (to an anticipated 95,500, as against 92,000 women, in 1975). The proportion of young women who go to University is much smaller than the proportion of men (some of this balance is redressed by the large number of women who go to business colleges, hospital nursing courses, etc.) but the demand for college training is growing among women, and this applies to technical training, if anything, even more than for men. The percentage among all young-adults of both sexes who will be looking for higher education is undoubtedly going to keep rising. If it were to go as high as 50 per cent, the pressure on the available (or new) facilities would be tremendous: what many people do not understand is that the proportions of university entrants in the recent past have been as low as 10 to 20 per cent. In 1900 they were probably only about 5 per cent. The "revolution of rising anticipations", as Adlai Stevenson called it, applying it on a world scale, can have its greatest social and economic impact in higher education.

The Macdonald Report worked hard on computations of the "student pool", from which, potentially, university students are drawn. But it is a fluid pool indeed, as everyone concerned with the planning of college facilities is now acutely aware. Firstly, there are additions to the "pool" from sources outside the families whose children start school in British Columbia. "In-migration", as it is now termed, is a sizeable and apparently growing factor in the coast province. In the high schools today, pupils from other provinces, and other countries, may be anything from 5 to 30 per cent of the total. Secondly, there are growing numbers of adult students - men and women who want to catch up on Grade XII or Grade XIII, or even Grade X and earlier. A proportion of these eventually make university applications; and of course there are others who have obtained their university-entrance qualifications elsewhere.

Even if the calculations of the potential pool or "student reservoir" were completely accurate (which is too much to expect), the critical factor is the proportion of the "pool" which must be regarded as operative. How many, at the Grade XII level, will actually apply for University admission - and will be accepted? The Macdonald Report, in a series of intricate regional calculations, applies factors as low as 4 per cent in the outer Cariboo districts and 10 per cent for the Peace River, and as high as 42 per cent for the Vancouver-Lower Mainland area and 36 per cent for Greater Victoria. Obviously, the presence of facilities themselves affects the proportion of young men and women who go to college. Motivation, which is probably the most important qualitative factor in the whole story of post-high-school education, is heavily influenced by environment; and "environment" in the current world includes the very existence of a college, of technical training facilities, of guidance and placement services or their absence, to say nothing of adult education classes, and the presence of people who are doing something about improving their education, or are thinking about it, and discussing it with their friends and acquaintances. Accordingly the "college-going proportion" in an area, which might seem to have been measured by earlier statistics at 25 per cent (the Macdonald Report suggested this for Central Vancouver Island) might rise rapidly if circumstances change. And there is a vital difference between Grade XII's on "university program", and Grade XII's of all options.

In such a context, it is clear that Grade XIII classes are only a partial index of the demand for college-level education. No enrolment figures have grown more rapidly than these in recent years. It is noteworthy that demand for Grade XIII has increased both in areas where remoteness from college stresses the need, as e.g., in Campbell River, but also in areas, such as e.g., in Duncan, where university facilities (University of Victoria) are close enough for Grade XIII to seem a reasonable transition rather than a compromise "stop-gap". The merits and demerits of Grade XIII need not be argued here: it is important solely to recognize that Grade XIII enrolments are in no way a complete index of college needs. For one thing, they are confined to students who have been following "university program" in high school: many people who might be particularly in need of Regional College courses will thus not be represented here at all.

Perhaps the age-group 20-24 is too wide a base (some forecasters prefer the three-year group 18-21): actual figures of current Grade X to Grade XII enrolments come closer to the dimensions which college planners must consider. These too, however, are full of imponderables as soon as projections are attempted. In British Columbia as a whole, Chant Report estimates were 31,400 in Grade X in 1971, and 20,100 in Grade XII: but recent reconsiderations of these figures (by the provincial Bureau of Economics and Statistics) suggest 34,500 in Grade X and 40,200 in Grade XII. A minimum figure for Grade X's in British Columbia for 1965-6 (next school session) is 25,000. It could be closer to 30,000 very soon. Assuming a retention of 70 per cent (which is rapidly becoming possible) for the smaller number, this will mean 17,500 in Grade XII two years later. This is to envisage 17,500 students graduating from high school in the spring of 1967. A figure of this kind may not seem large, until it is remembered that the first-year entrants of the University of British Columbia in recent years (excluding senior matriculation entrants) have not been much greater than 2,500! It is not hard to see why new universities have been rapidly accepted as necessary in all parts of Canada; why national reports in Britain have recommended expansions in all fields, including technical colleges as well as work-study programs; why junior colleges have mushroomed in the United States; why Regional Colleges make sense as an approach to the educational challenge in British Columbia.

6. The High-School "Pool" in the Survey Area.

It is one of the characteristics of grade enrolment figures that there can be sizeable fluctuation between one year and another, and in the extent of apparent retention or drop-out in the upper grades. The word "apparent" is necessary because transfers, migration and repeated years affect the figures. Averaging in various ways is usually resorted to offset some of these sporadic movements in the statistics. In the major tables for the present purposes, figures are amalgamated for eight School Districts, in three geographical groups or "sectors" (Table 15) and for the whole Survey Area, (with one qualification, in Table 16). Male and female pupils are totalled separately because there are some differences in retention rates, but more particularly because of university-entrance differences. Young men who go to college typically outnumber young women in the proportion of at least two to one, and in some areas of study as much as ten to one or more. The qualification noted above is that figures for the northernmost School District are not included in this important computation. This has the effect of keeping the preliminary estimates on the conservative side. But it is desirable from another point of view. While high school enrolment in the northern areas beyond Campbell River (formerly two Districts, now amalgamated as 85) is relatively small (of the order of 30, in Grade XII), the potential increase is greater here than elsewhere. New industrial developments, some of which are already in sight, could generate large population movements. A new high school for Gold River is already contemplated. In long-term calculations, a secondary centre or branch of the Regional College might well be called for, especially if the Powell River area, brought into more intimate contact with this area by the new ferry services, is included. These factors are taken into consideration in the conclusions of this Report.

Enrolments in the high schools of the Survey Area have grown so that in the last three school years, there have been well over one thousand boys and one thousand girls in Grade IX. Total enrolment in this grade has in fact varied between 2,100 and 2,200 in the last four years, and averages 2,194 for the five-year period 1960-1 to 1964-5. Grade X has also averaged around 2,000 in the last three years, though the five-year average is somehwat under this (1844). When the high-school "pool" reaches these dimensions, it is already time to give thought to a Regional College: for if only one-third of these youngsters have any college aspirations at all, and the high school crops continue at this level, there will be more than 650 potential candidates for an accessible College. This is arguable at Grade IX and X levels now, for the reason that the pressure is so much greater than ever before to complete Grade XII eventually. Whatever may be the actual drop-out before Grade XII, in other words, allowance must be made for those who will try to catch up eventually and, sooner or later, become part of the college-entrance group. (It is true that they will have to be "U.P." or better for the major universities, but they will be eligible for a Regional College so long as they have Grade XII completion in some form). This argument, it is also true, would have much less force, if Vocational Schools were freely available for Grade X graduates. It is generally conceded that the Vocational School is the most appropriate, and in all probability the most effective resource, for the Grade X graduate - most of all if his occupational aspirations have by this time been geared to the craftsman's or mechanic's level. (Even so, it may be noted, there is room for a considerable Vocational School contingent from the two-thirds of the Grade X output remaining on the above assumption). Unfortunately, the situation at present is not this simple. Because of the competition for Vocational School instruction, Grade XII is often in practice the qualifying grade, i.e. there are Grade XII applicants as well as those with only Grade X, and the former naturally get preferences.

Nevertheless, it is realistic to make initial estimates of College entrants from Grade XII high-school leavers. Averaging is again in order to even out the year-to-year fluctuations. On this basis, the increase in the last three years (from 1960-62 to 1963-5) for the Survey Area is 37 per cent (from 922 to 1,262). To obtain an estimate for two years ahead, i.e. the opening of school year 1967-68, two-thirds of this rate of growth may properly be applied. This gives an anticipated Grade XII class of 1,570. This is almost certainly an underestimate: an improvement in the retention rate (to say nothing of population increases in the far northern areas) would suggest at least 1,600. Judging from recent years, the number of boys and girls in these graduating classes are equally divided. Taking further account of the fact that more boys than girls will want to go to college, if 70 per cent of the boys and only 30 per cent of the girls seek to enter a Regional College, supposing it established by the fall of 1967, a minimum enrolment would be 800. If three-quarters of the boys, and only one-half of the girls were interested, there would be a potential of 1,000.

This is a minimum figure because it makes no allowance for Grade XII graduates from other years, who may have been in employment, but are now disposed to enter the College because it is more easily available. Nor does it make any allowance for married women considering college training (especially two-year training) because their families are now grown up, or old enough to permit them to study during school hours, etc. There is another way of underlining the need for flexible planning, however, once a reasonable minimum base is established. For the reasons already sketched, it is certainly not beyond reason to suppose that the high-school graduating classes in the area concerned would be closer to 2,000 than 1,600. If 70 per cent of the girls decided to continue their education and training through their Regional College, again the minimum enrolment to be faced could be 1,000. (Still a minimum in the same sense as before, because of the applicants from sources other than the current Grade XII crop, who would also arrive).

7. Current and Future University Enrolments.

Of course, many of the students whose numbers have now been assessed do actually go to University. These (providing appropriate assumptions are made) should be subtracted from the gross potential against which a College may be planned. It is therefore necessary to direct the enquiry next to the question: how many students from the Survey Area already secure University entrance? It is possible to give fairly comprehensive answers from a special survey which was made of University of British Columbia data; and the principal figures required for comparison were also supplied by the University of Victoria. This kind of information also indicates how far the area is already served by existing facilities in British Columbia; but, equally with the rest, this becomes difficult to interpret as soon as it is projected into the future. How far can existing trends be expected to continue, if there is a Regional College on the Island? Here it is only possible to assemble the various considerations, and make a judgement. New factors in the situation, in any case, change all previous calculations. One of these is the opening of Simon Fraser University in 1965-6; another is the establishment of the B.C. Institute of Technology, with its relatively small but highly important specialized student body. Even the University of Victoria, with its long background of forty-five years on the Island, is a very different institution today from the small Victoria College which it was until very recently. (The Macdonald Report projects a possible enrolment of 4,000 by 1971).

In any use of University enrolments, an important distinction must be maintained between the total number of students on the campus at any particular time, and the number of new entrants at the beginning of each session. The latter is the contingent arriving mainly from the high-school "reservoir", whereas the former includes students at all stages from first year to Arts and Science graduation (fourth year), and a great variety of other faculties, as well as post-graduate studies. Summer School, and extension classes, which run into many thousands, should nevertheless be excluded for present purposes. The detail for UBC, which will be of assistance in future curriculum planning, is assembled in Appendix B; some major implications only need be pursued here.

Taking two-year averages (which for reasons already explained, is wiser than relying on a single year), about 5.3 per cent of the overall student body at UBC comes from Vancouver Island sources, only 3.1 per cent from the Survey Area. For the University of Victoria, the picture is naturally very different - a much larger proportion, though this of course represents a much smaller total figure. About 63.5 per cent of the University of Victoria students come from the Greater Victoria area, a high percentage but probably less high than in the past, and undoubtedly one which will grow smaller as the attractive power of a well-situated small college makes itself felt; an increase in international students is also to be anticipated. From the Survey Area, excluding Greater Victoria, about 20.4 per cent of the students originate at present, a sizeable number (averaging 470 for 1963-5) and the second largest contingent after the Vancouver-Saanich-Sooke recruitment of 1,460 or so. These figures are more likely to be around 1,500 and 500 in the near future (it being remembered that these include students in all four years of the undergraduate curriculums). It may be added that the ratio between Greater Victoria and Survey Area students is only about 3 out of 10 for UBC, as compared with 6 out of 10 for University of Victoria. The greater "spread" at UBC is almost certainly accounted for by the very great variety of faculties and courses which may be taken at UBC. But the numbers are small. As Tables 21, a,b,c, (Appendix B) show very clearly, a small handful of candidates in most of the faculties other than Arts and Science are all that are coming from the Island. For example, 10 men and no women in first-year Commerce, 28 men and 1 woman were in subsequent years of Commerce, in 1964-5; and this compares with 3 men and 1 woman in first year, 37 men and 1 woman in subsequent years, five years ago in the 1960-61 session. Even Applied Sciences taken together (which includes Engineers), the largest faculty group, mustered only 19 men in first year in 1960-61 and 15 in 1964-5; subsequent years taken together account for a more sizeable total of 122 in 1960-61, which however increased only to 133 by 1964-5.

Table 20. Areas From Which Students Come to University of British Columbia

(Total Students in All Years, and First-Year Entrants; Two Most Recent Sessions)

Geographical Area	Students in 1963-4	All Years 1964-5	New Entrants 1963-4	1964-5
1. Greater Victoria	336	338	149	164
2. Central & Southern Communities	300	323	115	124
3. Northern Communities	134	133	52	50
4. Gulf Islands	18	14	4	4
Total Vancouver Island (a)	788	808	320	342
Source: Special counts, University of British Columbia. More detail from this compilation is assembled in Tables in Appendix C.				

(a) Over the period 1960-65 the ratio of men students to women students has been approximately three to one.

Table 21. Areas From Which Students Come to University of Victoria

(Total Students in All Years; Two Most Recent Sessions)

Geographical Area	Number of Students 1963-4	1964-5	Proportion (1964-5)
1. Greater Victoria	1,331	1,594	62.8
2. Rest of Vancouver Island	423	518	20.4
3. Vancouver & Lower Mainland Area	38	64	2.5
4. Okanagan	61	74	2.9
5. Kootenays	102	133	5.2
6. All other areas of British Columbia	91	103	4.0
7. Other provinces of Canada	25	40	1.6
8. Other countries	14	14	0.6
Total enrolment	2,085	2,540	100

It is important to keep such qualifications in mind in assessing the round figure, which is that there have been some 800 students from Vancouver Island communities at UBC in the two most recent years. About 330 of these were first-year entrants; and nearly half of these come from Greater Victoria, not the central and northern localities beyond the Malahat. Will this proportion change? It is hard indeed to assess the balance of the facts, that on the one hand the University of Victoria will now be more attractive for third and fourth years (in Arts, Science, and Education) as well as the first two years, while on the other hand UBC will develop more facilities in its special faculties (Medicine, Dentistry, Forestry, Law, etc.) which are the proper destination for the student academically suited for a professional career. Some estimate may at least be made, particularly from the firm statistics of UBC first-year entrants, of potential in this respect for the next few years.

In the last five years, new entrants from Vancouver Island sources have risen from 229 to 324 (Table 20): while these are only moderate totals, they represent a substantial increase of 42 per cent (the ratio of men to women has remained the same, at about two to one). From the Survey Area only 125 came in 1960-61 and 174 five years later. This is a lesser rate of increase (39 per cent), and the proportion of girls is also smaller. It is a fair inference that at present it is somewhat harder for a youngster from the central and upper areas of the Island to get to UBC than for one who lives in the Victoria area. And 174 is a small number indeed, against the "reservoir" of 1,350 or thereabouts revealed by Grade XII figures (Table 16 extended to nine districts) or even the 850 or so on University programs (Table 17). It indicates less than one in seven going to UBC from Grade XII at present, and only about one in five from Grade XII, University program. The University of Victoria of course redresses this balance considerably, since 200 of its new entrants are from the Survey Area all told. This means that about 375 of the 850 most likely "potentials" get to either UBC or University of Victoria at present. This leaves 475 unaccounted for, and takes no account of the 400 or more who completed Grade XII on non-academic program.

It still remains to project the situation forward at least two years. Assuming a Regional College can be established for 1967-8 opening, how much of the enrolment will be from young men and women who would otherwise have found their way to UBC or University of Victoria, how many from people who would not go to either institution at all? For the moment, it is simpler to put the question the other way round: at current rates of increase, how many high-school graduates are likely to be going to university, assuming there is no Regional College yet available?

An unknown number, by this time, will be able to enter Simon Fraser (and some will choose this rather than the other two universities); a few will go to the B.C. Institute of Technology. The present total from the Survey Area, with only the UBC statistics to provide any extended measurement, suggests 400 as the standard contingent. Assuming that none of these were diverted to a Regional College at all, and that there was an actual increase in students seeking to go to the three universities, and being accepted for entrance, a reasonable figure for this contingent would be of the order of 500 two years from now (or at a minimum 450), assuming that rates of increase for UBC and University of Victoria will be not quite as spectacular as they have been, and also that Simon Fraser's attractive power will more than "take up the slack". What a maximum could be is anyone's guess, but there are limits to the power of expansion of even Simon Fraser and the still-new University of Victoria, and Simon Fraser in particular will have to serve all the other areas of B.C. besides central Vancouver Island. It seems permissible to set a possible higher figure at 600, but no more. (If this were realized, it would mean that sixty per cent more of the Survey Area candidates were going to University than two years before, excluding anyone taking university courses at the new Regional College, which is quite a lot to expect). These estimates can be related to the other components in the concluding section. For the moment, it need only be recalled that the Grade XII output will be up to something like 1,600 for the school year concerned; and there will have been additions, of course, to the "backlog" of past Grade XII graduates, those who are eligible from previous years but who have deferred any college plans for the time being.

8. Adult Education Sources.

A striking growth in adult education classes of all kinds in recent years is a continent-wide phenomenon. It derives from many sources, and it is unwise to make generalizations about aggregate figures. One important component is the young people who are concerned to remedy their earlier schooling deficiencies. Quite another is formed from the varied groups of people experiencing the "new leisure": it includes such diverse people as married women whose children are grown up or at school, workers with shorter hours, the aged and retired. There are courses designed for sheer amusement; others for specialized or exotic hobbies; courses which belong to the fine arts rather than hobbies or recreation; some for serious study unrelated to any course-credit or university qualifications (including public affairs, international issues, religions of the world, the Great Books, language courses, etc.); vocational and technical courses which were once available only "on the job" or by commercial correspondence courses; and, most recently of all, a range of up-grading courses of academic content (particularly in English and mathematics), directed either at high-school graduation or university entrance qualifications, or as the necessary foundations or supplements for the rising content of modern technology.

While fewer women go to college than men, it is important to remember that women are a particularly important "constituency" for community colleges. A growing proportion who will take courses for credit is to be anticipated. In Minnesota a specially developed Continuing Education Program for Women, pioneered over the last five years at the University of Minnesota, has become famous for its striking results in a gamut of activities from degree programs to friendship study-groups. It requires experienced organization, but it is a stimulating example of the creative discovery of new potential.

It is altogether likely that the "reservoir" of women who might be interested in the facilities of a new College is greater in the Vancouver Island communities than elsewhere. There are two reinforcing reasons. First, there is apt to be more assumption that the woman's place is in the home: she will indeed be more needed for families whose father has moved to these varying remote centres because the job is there. Secondly, there are fewer facilities for travelling and education, anyway. (Correspondence courses do not offer as much for women as they do for men, by and large). Yet the other side of the picture is that these towns and settlements are often in great need - even desperate need - of community activities and social development. There is a real challenge here for a Regional College to serve a scattered region and to aid the more limited and deprived centres. It must not be forgotten that one of the services a College can provide is a travelling service. If there is a corps of skilled personnel in a recognized centre, it can be drawn on for places beyond its immediate location, if appropriate arrangements are worked out. This is a matter for coordinated initiatives, not haphazard and isolated ventures, and much will depend on the understanding of this Extension resource.

All of these in their various ways may be relevant to the Regional College curriculum - the more so as the college is thought of as the headquarters for active community development rather than the preparatory channel for senior university degrees - but the extent to which they can all be fostered is a matter for further consideration. Some attention is imperative, however, in considering the total potential enrolment of a College even in the more restricted sense of the full-time students working at standard academic and technical studies. To gain a few insights into the local scene, a spot survey was made of the people attending all night classes being conducted in the Nanaimo School Districts on one evening towards the end of the school year. This served several purposes, among them a check to discover how well-known the curriculum possibilities of a Regional College actually are (referred to in Section 12). In addition, however, this sample group (157 in all, of whom 42 per cent were men) were asked: If a Regional College can be established to serve Vancouver Island, would you be interested in any courses it might be able to offer?

A majority of this group expressed definite interest: 52 of the men and 49 of the women. This represents 85 per cent of the sample in the case of the men, 54 per cent among the women. This is a result within reasonable expectations, as more men generally are interested in technical and academic improvement, while there are more courses of a general leisure-time character which are taken by women. The proportion of male interest, nevertheless, is significantly high. Since the great majority of both men and women were reasonably specific about the kind of courses they wanted, this can be further illuminated below. It is helpful first to note the age-distribution (Table 18a on following page).

It is easy to translate these into percentages. The most important evidence is the large proportion who are under 30: approximately 40 per cent of the men, and well over half of the women. Only a very small proportion are in the older age-groups and there are only a few veterans (65 or older). This may not be representative, as upper age-groups are usually sizeable in contemporary extension programs. On the other hand, the weighting towards technical and high-school-upgrading courses shows the tenor of the local demands. For the Nanaimo sample, the detail is summarized in Table 18b.

The need for all the standard courses of the first years of University is clearly exhibited, also the interest in technical and business instruction. This sort of detail is, perhaps, only "straws in the wind": but there is not much doubt about the direction in which the wind is blowing.

For the six districts in which adult education classes are being given, in the Survey Area, the nature of the attendance is shown by Table 19. The great variety of courses not intended for course-credit or college qualification per se (here summarized as "non-vocational") predominate: they enrolled nearly 2,600 people during the 1964-5 season. But vocational courses are much in demand, notably in the Albernis: with close to 1,500 enrollees, they account for almost 40 per cent of the 4,800 total. Academic courses can be distinguished by whether they qualify for high school grades or University entrance, though there may be some overlapping at Grade XIII level: together they registered 744 students last year. The extent to which men are interested in adult education, as compared with women, depends very much on subject-matter. Three-quarters of the students in vocational courses are men (though such a figure needs to be corrected by the large proportion of women who attent private commercial and business schools). Young men and women are about equally interested in gaining or improving university credits, though there are differences in choice of subject. In the wide open field of general-interest courses and programs, as might be expected, women are more frequent registrants than men, in the proportion of seven to three (Table 19b). There are no very significant differences between districts in this respect.

It is reasonable to expect increases in the totals who seek extension courses, certainly until such time as a Regional College is established. In the Nanaimo District, for which records for five years are available, the number of classes instituted rose from 51 in the session 1960-61 to 78 in 1964-5, while enrolment more than doubled. The biggest increase is in academic classes, though vocational classes are not far behind.

How much of this "reservoir" is part of the potential enrolment for a Regional College? A small proportion beyond any question, but by no means all. There is to begin with, a certain amount of overlapping. A few people take more than one course, and some take several. A few are only recently out of high school and are covered by the standard school-enrolment statistics. Furthermore, it is proper to assume that some Adult Education resources of the local School Boards will remain decentralized, even though they may be better coordinated and reinforced by having a Regional College as a central resource. Leaving out altogether the non-vocational courses, however, and assuming that only ten per cent of the present enrollees in the academic-credit and vocational courses might appear as candidates for Regional College entrance along with the most recent graduates from high school, would add another 220 to the numbers to be considered. This still takes no account of the rapid rate of increase being registered by all such programs in recent years; and the experience of such a development as the King Edward "adult school" in Vancouver (now the Vancouver City College) is further evidence of the trend.

Table 18a. Age Groups of Night-Class Members who Indicated Interest in Regional College Offerings (Nanaimo, 1965)

Age Group	Men	Women	Total
Under 21	10	12	22
21-30	9	16	25
31-45	25	16	41
46 or older	8	5	13
Total	52	49	101

Table 18b. Courses Indicated as Desirable, by Members of Adult Education Classes, Nanaimo; April 1965

Types of courses specified	Men	Women	Total
Grades X-XII, high school up-grading	5	2	7
Grade XIII, senior matriculation	3	2	5
English, history, science as part of first 2 University years	12	10	21
Teaching, other pre-professional	5	6(a)	11
Science courses, first two 2 University years (especially physics, biology)	5	3	8
Mathematics	3	1	4
Technical, including refresher courses	6	6	11
Business, secretarial, managerial	6	5	11
No course or topic specified	7	5	12
Total	52	49(b)	101(b)

Source: Special survey, night classes Nanaimo School District.

(a) Includes nursing specified by 3 women.
(b) Other courses specified by women and included here are: recreation, community leadership, 4; theatre, drama 2; languages, 3.

Table 19. Adult Education Enrolments, Survey Area, 1964-65

a. Total numbers

District	Academic		Vocational	Non-Vocational
	HS	UC		
Nanaimo	-	503	333	754
Albernis	52	-	662	558
Ladysmith	-	-	112	109
Cowichan	33	40	204	415
Courtenay	116	-	174	489
Campbell River	-	-	-	244
Total (6 districts)	201	543	1,485	2,569

Source: Special count, School Districts. HS: high school credit. UC: university credit. Proportions on next page.

b. Proportion of males (P.C.)

District	Academic		Vocational	Non-Vocational
	HS	UC		
Nanaimo	-	52	70	33
Albernis	78	-	75	27
Ladysmith	-	-	68	27
Cowichan	24	30	56	27
Courtenay	93	-	75	36
Campbell River	-	-	-	25
Total (6 districts)	75	50	75	30

C. THE COLLEGE POTENTIAL

9. The Regional College as "Mobilizer"

No matter how refined the calculations of probable University entrants from the basic figures (high school graduates and appropriate age-groups) may be, complete prediction is impossible. There are too many other sources from which Regional College candidates may come. At the outset of this concluding section, it will be worth while to enumerate these, so that the situation may be well understood, both by the public at large, and by those who will be responsible for setting up the College. In the first place, there are the young men and women who, if there were no Regional College, would go to UBC, or the University of Victoria, or - a completely new factor in the equation - Simon Fraser University. If a College is opened, how many qualified first-year students would prefer to go to their Regional centre - particularly if they know that they can transfer at the end of the first or second year, if they are successful? The College will be cheaper, more convenient at least for a great many, and more compatible for some because it will be smaller, there will be more chance to get to know faculty members, and there will be counselling. On the other hand, many - certainly those with high marks - will prefer to go to the senior institution immediately. For those from remote areas - and unfortunately there will always be a sizeable number of these for some time to come - it might seem preferable to go to the mainland since distance has to be faced anyway, provided their parents can afford the cost. Others will find the University of Victoria preferable, on the grounds already enumerated, except costs. Cheaper tuition, and cheaper residence, will remain as important attractions for all Island residents, outside the Victoria area, even if their homes are still a long way away from the Regional College.

While fewer may actually go to UBC than in the past, it is reasonable to suppose Simon Fraser will be very attractive because of its stimulating innovations, its "self-contained" terms under the trimester system, and its promise of somewhat liberal entrance requirements. On the other hand, UBC has a much wider range of faculties than any other higher-education institution; and for some, if they are truly oriented to, e.g., the senior professions or post-graduate study, there will be no alternative. The B.C. Institute of Technology will be attractive for a few and its capacity is to be increased from the present limit of 750: but it must be remembered that BCIT will accept only students with high qualifications, particularly in mathematics. A conservative guess would be that just as many will continue to go to the four senior institutions (if BCIT may be included, even though it offers two-year courses) as would have gone if there had only been UBC available). (Supposing the Regional College can be opened for the session 1967-8, two years of increase comparable to those of recent years must also be allowed for, in subtracting the "unaffected" quota from the potential pool).

How far can Grade XIII enrolments be an indication of numbers who will transfer to a Regional College once it is established? It must be kept in mind that the cessation of Grade XIII instruction is almost automatic with the advent of a College: as

West Kootenay experience has already indicated, provincial government subsidies will in any case cease once a College is available. Again there are several "unknowns". It cannot be assumed that all students now taking Grade XIII are fully motivated to go to University. For some of them at least it is a faute de mieux, better than quitting school altogether, and a way of gaining one more year to try to find a career. The High School Survey has revealed that there are a few youngsters who are taking Grade XIII with the idea in mind that they will thereby increase their competitive chances of entering, not an Institute of Technology, but a Vocational School! Others have in mind some on-the-job training thereafter, or something like the Officers Training schemes. On the other hand, there are many Grade XII completers who do not have university entrance. By 1966 there will surely be more of these in vocational programs than before, if the new curriculum is to be credited with any success at all. How is a balance to be struck between these imponderables? Grade XIII enrolments have been increasing rapidly. Certainly the kinds of courses that would be attractive to Grade XII youngsters will seem more so at a Regional College than they are in present Grade XIII instruction. Judging also from the sidelights on Grade XIII preferences given by the High School Survey, it seems that a larger figure than recent contingents must be assumed as one of the components of the Regional College recruitments.

On the technical level, there are hundreds of persons, both men and women, taking correspondence courses of various kinds. Some of these are actively encouraged by industries. Whether some of these types of education or training might be better conducted through a Regional College is a question of considerable importance which will need to be weighed on its merits in particular fields. Some of these activities, undoubtedly, might be worked into regular Regional College programs: particularly if the general or educational components are as important as the purely technical, and particularly if work experience can be integrated into the courses, a procedure which is entirely compatible with Regional College operations.

Allowance must next be made for people from outside the standard age-groups. It is one of the characteristics of a Regional College, with its variety of course-offerings, its flexible entrance requirements, its responsiveness to local needs, that it will have a larger percentage of older students than the characteristic university (judging from its first-degree or undergraduate constituency, at least). Inevitably, and desirably, a Regional College takes on some of the features of "night school", of University Extension, and of Adult Education activities of School Boards. Many of these will be non-credit courses; and the pattern and development of these is a special chapter of Regional College planning in its own right. But students for credit will also be drawn from adult ranks. There should be a good many who were Grade XII graduates in the past, who have entered employment but whose jobs for various reasons do not have staying power. There may be some displaced by technical changes or automation. The possible "pool" of past Grade XII graduates, from many years other than the current crop, is large indeed. It is altogether likely to include far more women than men. Married women whose children are beginning to grow up, or who may even have married in their turn and set up their own households, are a growing group, and an important one indeed, in the new educational era. Some of them may want to study "for the sake of it", not necessarily for re-employment: other recruits may be welcome to ease the shortage of teachers or nurses. Nothing is certain about the dimensions of these "reserves", except that Regional Colleges (like all Junior Colleges in the United States) will bring them out in volume: perhaps especially in the first few years of the College when it may have to cope with some pent-up demand.

It is relevant to record here that American experience with colleges establishes strikingly the vast increase in "evening" and "adult" enrolments - including herein a large volume of part-time students. These categories sometimes bid fair to outnumber the full-time enrolment, and in exceptional cases may be twice as large. On this area of Regional College activity, however, it is also important to note that enlightened policy counsels heavily against separation between "day" and "evening" students. Not only is it undesirable to permit the implication that an evening student is a student of inferior status: the fact is that more flexible shifts and working-hours in modern industrial and service employments have broken down some of the older distinction between "regular" day classes, and night classes. With extended programs for certain kinds of students, e.g. a three or four-year span to complete the two years of work, it is equally possible that distinctions between full-time and part-time students will break down, perhaps should be broken down.

All this means that a large margin must be attached to any minimum starting or "bench-mark" figure. This should be done, even excluding any estimate of part-time students, whether these are defined as those taking one course only or, on the U.S. pattern, students whose total program comprises less than 12 units of credit. (There may also be a case for distinguishing occasional students in Regional College statistics). But assuming, as one should, that adults (older than the modal college-ages), and students doing much of their course work on a varied time-pattern, are each a proper part of the student body, it is virtually certain that their numbers will be much larger than would be assumed for a standard four-year university. If there is a special increase in population, establishment of new industries, or in-migration (and these of course may be inter-related), the quota of older adults will be so much the larger. Up-grading, whether for promotion or for keeping up with the demands of accelerating technology, and refresher courses for technical, professional or administrative personnel, may not necessarily add to the regular students: they are more likely to be short-term undertakings, but it is not impossible that some of them may be developed as two-year programs.

Apart altogether from the issue of estimating the student body and the starting enrolment, what this emphasizes is that the Regional College is not merely an institution meeting an educational need. It is, in effect, a mobilizer of educational motivation and even of educational enterprises. Its very existence will encourage many to undertake studies they would not otherwise consider: its existence will encourage the provision or use of facilities, perhaps of innovations and experiments, if the community is responsive at all. The large potential enrolment will make demands on the technical staff: it will make demands on administration. The weight of these must not be underestimated. But the flourishing of enrolment should be welcome rather than a matter for alarm: it will be an indication that the community is using its educational centre, that it is seeking to raise its standards and its potential, whether in terms of its employment capacity or its quality of civilization. If general education is kept clearly in focus, as it must if the College is to be a college and not just another variety of technical institute, both products will result.

10. Aspiration of Current Grade XII's.

Among the most significant material from the comprehensive survey of all students in the Grade XII classes of the secondary school in the Survey Area, is the tabulation of their expressed preferences on further education, training, or employment after high school. Since there were relatively few absences, the survey constitutes more than a ninety per cent sample. To underline the major points, a summary is presented in Table 25a, but the detail in the accompanying table is also valuable.

Somewhat more girls than boys are in the current classes. What the survey confirms is the very different pattern of post-high school expectation that applies to the two sexes. Regardless of whether they are in university-entrance (now "academic-technical") programs or not, 56 per cent of the girls anticipate (indeed, state a preference for) either employment or vocational training, as against only 37 per cent of the boys. Some overlapping between these categories is inevitable, partly because the youngsters are not always sure what they are actually going to do, but also because on-the-job training is built into certain career undertakings, such as army-officer training or air-stewardess jobs. Work as well as study is also part of the most popular occupational resources among girls, e.g. nursing, particularly if it is followed in a hospital course rather than college or university. Business courses are also of particular appeal to girls - many of whom have already been preparing for this in their

Table 25a. Plans and Preferences After High School; Summaries; Survey Area, 1965

Totals

Plan	All Boys	All Girls	UP	GP	Total
Universities	203	156	335	24	359
Colleges	101	76	125	52	177
Grade XIII	70	55	119	6	125
Vocational	95	209	119	185	304
Employment	117	154	111	160	271
Total	586	650	809	427	1,236

P.C. Distribution

Plan	All Boys	All Girls	UP	GP	Total
Universities	34.7	24.0	41.4	5.6	29.0
Colleges	16.2	11.7	15.4	12.1	14.3
Grade XIII	11.9	8.5	14.7	1.4	10.1
Vocational	17.3	32.2	14.7	43.0	24.5
Employment	19.9	23.6	13.8	37.9	22.1
Total	100	100	100	100	100

Table 25b. Plans and Preferences After High School: Detail for Survey Area, 1965

Preferences	Boys		Girls		Total	
	UP	GP	UP	GP	UP	GP
University	189	14	146	10	335	24
University of British Columbia	89	4	81	5	170	9
University of Victoria	56	3	57	2	113	5
Simon Fraser University	35	6	20	1	55	7
Elsewhere	9	1	8	2	17	3
Other Higher Education	139	32	105	26	244	58
Grade XIII (a)	64	6	55	-	119	6
Regional College	23	12	30	20	53	32
U.S. Junior College	2	1	6	3	8	4
Institute of Technology	50	13	14	3	64	16
Training	23	72	96	113	119	185
Vocational	18	65	29	51	47	116
Business	3	6	23	49	26	55
Nursing	-	-	41	9	41	9
Arts	2	1	3	4	5	5
Employment (b)	53	64	58	96	111	160
Totals	404	182	405	245	809	427

Source: Special Survey (High Schools in 9 Districts)

(a) Including a few proposing to repeat Grade XII

(b) Including some on-the-job training, e.g. 9 (UP) boys electing for officer training, 2 girls for air stewardess.

commercial options at school. The aforementioned 56 per cent employment-minded among the girls "graduating class" should be compared with the fact that 62 per cent of them are in the university program. For the boys, the two figures are 31 per cent not in the university program, but 37 per cent choosing vocational training or employment. For both sexes, this reflects some realism about whether their marks, or perhaps their family circumstances, or both, permit continuance of their education at university. The term "graduating class" above was only used broadly, because they were not in fact all due to graduate: there is a small quota of probable repeaters identified in the survey, and undoubtedly a few others who would drop out this year (though they might well appear later in adult-education classes).

On the upper rungs of the ladder, 35 per cent of the boys and 24 per cent of the girls aspire to university as such (excluding the other higher education resources specified). Less than 30 per cent in all of the current "potential" feel they can seriously think of going to UBC, to the University of Victoria, or to Simon Fraser. The total which this would produce, applied to the projections explored in Section 7, is not far from the round figures utilized in the final compilation (Section 11). The specifics from this 1965 survey are of much interest. UBC as a goal still outweighs others, being chosen as their preference by 15 per cent of the students. University of Victoria is chosen by 10 per cent, in contrast with the fact that larger numbers are actually going to Victoria rather than UBC from the Survey Area. Simon Fraser is specified by only 5 or 6 per cent, and the B.C. Institute of Technology by about 7 per cent.

The middle part of the picture, and the critical area for the present Survey, is the proportion who have given consideration to "college". It would be illusory to expect any precision here. The students are well aware that there is no Regional College available yet and, even in stating "preferences", they are far more likely to be swayed by practical competing alternatives at this "moment of truth" in their school career. None the less, 14 per cent in all (somewhat more among the boys, somewhat fewer among the girls) voted in effect, for "a college if there were one". As predicted, this is much more than the 5 per cent or so who indicated this choice in the trial survey conducted among Grade XII's in three schools at the end of term in 1964. A better approach to dimensions is obtained if account is taken also of those hoping for Grade XIII classes, and of at least some of those hoping to go to B.C.I.T. The Institute of Technology is, after all, a two-year college; and it is also reasonable to expect that some of the courses given there (e.g. in pulp and paper technology) might be paralleled, with appropriate coordination arrangements, in a Regional College. It is true that Grade XIII students are technically university prospects; but Grade XIII classes will be discontinued in the event of a Regional College establishment, and there is also evidence that some students take Grade XIII simply because there is no better alternative. All in all, it is not unreasonable to assume that 20 per cent of the high school output would come to a Regional College for non-transfer courses alone, and a higher quota if some of those expressing "vocational" options at the moment were able to find college courses suited to their abilities and needs.

These arguments are underpinned by the figures which show the differences between university-program and general-program students. Taking boys and girls together, 41 per cent of the university-program students aspire to go to university as against less than 6 per cent of those in the vocational, commercial, and general options. This is the kind of thing to be expected, certainly if the students are making realistic plans (questions relating to the "definiteness" of these plans have been analyzed, but are reserved for the subsequent section of this report). But it should not escape notice that, among the boys, for example, for whom family motivations are usually strong, less than half of these youngsters presumably preparing for a university degree see a university clearly in sight at this stage in their educational career. The figure is better than one-half if "Grade XIII's" are added (though this includes a few Grade XII repeaters): but at least some proportion among these accept this alternative because it is less expensive. The solid fact remains that an intermediate institution, whatever may be the difficulties in designing its curriculum, is needed, if we are to bring both higher-education and career-channels into better relationship. And the numbers for whom it is needed are sizeable - undoubtedly larger than the number who at present manage to make the transition from high-school to university with some success.

11. Range of Enrolments: Regional Implications.

The biggest and most uncertain variable in the total of candidates who will come to the doors of a new Regional College is not the current crop of high-school graduates, but the graduates of past years who will now try to seize this opportunity either of realizing temporarily-abandoned college plans; or, more realistically, will now try for some upgrading in their qualifications, or attempt a new career approach altogether. As the various computations brought together here make more and more clear, this is the group in the whole educational-vocational scheme of things for whom at present there is no clear-cut avenue to fulfilment. Most of them have been in employment of some kind, occasionally of several kinds, for varying periods. The realistic figures just reviewed of "educational aspirations", which are really employment aspirations for more than one-third of the boys and more than half of the girls, permit a better quantitative perspective on this potential Regional College contingent. Certainly not all of them will try to enter the College: there are some for whom it would not be appropriate, there are some who definitely would prefer to work, there are some who are very properly directed to the Vocational School, to apprenticeship, to work as a craftsman, an artisan or a competent stenographer. But how many? And how are they to be sure? Has high-school experience always been enough to settle the matter? For these reasons, not only is the college opportunity an important one, but a counselling service can be one of its most valuable services. (See Section 12).

Some idea of the influence of this particular variable in Regional College calculations can be guaged from pondering the figures, partly available, partly guesswork, for only a five-year span in the Survey Area. Taking the five years prior to the supposed opening of the College for the session 1967-8, the total output of Grade XII graduates of all kinds will be at least 6,500 and more likely 6,600. There will be somewhat more girls than boys, and the proportions of "academic-technical" to other programs will be roughly six-to-four. From other assembled data, it is now possible to make reasonable assumptions of the proportions who will actually have gained entrance to university institutions, and those who will have entered employment or sought direct vocational training. It is possible in this way to "account for" about 70 per cent of the boys and 75 per cent of the girls, taking optimistic views of the satisfactoriness of both their educational and occupational niches. This conservative judgment would still leave an accumulated "college potential" of at least 1,800 men and women. Since such a total includes the year immediately prior to the supposed opening of the Regional College, the estimates relating to the current crop alone (year 1966-7) should be deducted. If this were done, it would give a minimum of 800 and a maximum of 1,000, who might be called the extra-potential candidates from these "backlog" sources. They would contain, of course, quotas from the groups who appear in Adult Education courses, so that there is overlapping between these figures and those reviewed in Section 8.

Because of their obvious uncertainty, however, these figures are not used in drawing up a final balance sheet. Nevertheless, they justify giving some consideration to this source of College recruitment. It must be remembered that a ten-year "backlog", which is not an unreasonable period to consider, would produce even larger figures. A conservative allowance is made, for both the Grade XII backlog and the small quota from Adult Education classes already identified, taken together, of 450 as a minimum and 650 as a maximum.

It is now possible to assemble the relevant figures in a balance-sheet of sorts, to suggest the most probable enrolment which a Vancouver Island Regional College should anticipate if it were to open two years from now, for its first session 1967-8. It must be remembered that the data from which these estimates are derived come only from the Survey Area, i.e., they exclude the Greater Victoria or southernmost segment of the Island. The Survey Area is of course the proper "catchment area" of the College, but there should be no prohibition against students from elsewhere on the Island (including the Gulf Island, etc.). The anticipations are that such numbers would be small, but they would represent increases over the figures listed. Likewise, if the College can be opened only in 1968-9, the numbers will be substantially larger.

Having regard to all the factors involved, and to all the available evidence, a minimum full-time enrolment of 650 is a substantially safe prediction. Such a figure, it is to be noted, assumes little or no drawing off of students from UBC or the University of Victoria; it would, in other words, be a net contribution to higher-education resources. Such a minimum figure is more than enough to justify an immediate start on the steps which are necessary for the establishment of a College. "Maximum" figures are added to this estimate as an essential required by the planning situation. Not only is expansion, certainly in the succeeding five-year period, to be anticipated: flexibility will be needed from the start, because the potentials in the early years are so large. College after College has had to face this contingency, and the only wise course is to prepare for it in advance. Assuming that the Vancouver Island College can be opened in two years, and estimating in the first instance from full-time enrolment, 650-1,000 would be practical working figures for such matters as classrooms, instructor-quotas, seminar and laboratory provision, etc., in the first year. Day-time capacity would have to be a primary consideration, and some overflow could be taken care of by evening sessions. But, as already indicated, evening and part-time students should be an integral rather than an "extra" or emergency part of the College's plans, and these should be developed in the expectations of evening enrolment at least equal to the minimum day-time capacity. The most important reason for planning beyond the minimum immediately, however, is the time factor. An enrolment of 1,200 full-time could certainly be expected within five, perhaps even three years. Under present conditions of expansion in population and school enrolment, moreover, every year of delay will add its quota to the appropriate minimum figure.

(1) The Alternatives: Basic Recommendations.

The implication of this reconnaissance of guides for planning may now be drawn together. There are some alternatives to be weighed against each other, and there are some connected recommendations; but in the interests of careful appraisal, the main issues will be numbered, and considered seriatim.

(a) The Need for a Regional College.

That the region (whether defined as the Survey Area, or as the Island as a whole) needs a College, over and above existing higher educational facilities which are, in a limited sense, "available" to it, is indisputable. The important decisions are those of time - how soon can facilities be provided? - and of place - where best can such provisions be effective? A two-year period of preparation has been suggested, in full recognition of the reality that this is a very short time. The public has to be consulted, both by plebiscite and by referendum, which may take several months. Assuming that both votes are favourable (which of course must not be taken for granted) a year-and-a-half is brief indeed for preparing building plans and, what is equally important, securing the minimum key-personnel. Principal, curriculum director, librarian, and chief counsellor, should be appointed and desirably should work together for a year before the College is open for classes. The possibility has to be faced that three years rather than two might elapse before this event. The disappointment this would entail is outweighed only by one advantage - that intensive pre-planning is essential; if more time is available to devote to this, the College and the community will benefit in the long run. Pre-planning is not the same as delay, however; it is hoped that sheer delay will be preventable if the public is fully informed of what is at stake..

Table 26. The Range of Enrolment: Full-Time Students

(Survey Area)

Factors	1964-5	1967-8	
Grade XII enrolment	1350	1600	
Students on academic program (Grade XII)	850	950	
Students on other programs (Grade XII)	500	650	
Students in Grade XIII	230	300	
Persons taking University credit courses, Night classes	550	( )	
Persons taking High-School upgrading courses	200	( )	
Persons taking vocational courses	1500	( )	
a. Potentials from current Grade XII	-	Minimum 800	Maximum 1000
b. Possible contingent from Adult Education, and Grade XII graduates of earlier years	-	(450)	(650)
Total a plus b	-	1250	1650
LESS Entrants to UBC, University of Victoria, Simon Fraser, B.C.I.T.	375 (400)	Maximum 600	Minimum 450
Possible (full-time enrolment at new Regional College		Minimum 650	Maximum 1200

(b) The Case for a REGIONAL College.

The statistics which have been combed through to reach the above conclusion, apply to the combined area, covered by nine School Districts, taken as a whole. The assumption is, in other words, that an institution is being sought which will be truly regional [The exact location of a Regional College for the Island is reserved for consideration with other relevant matters in Part II of this Report.]. Even though this is a difficult region (because of its long string of centres), even in some respects an anomalous region (because it is tributary to other areas, both Vancouver and Victoria), it must be treated as a region, because only in this way is the "catchment area" large enough to justify a major College. Moreover, it should be treated as a region, because in this way there are opportunities for educational, vocational, and community development which cannot be as effectively provided in other ways. The truly comprehensive College, effectively combining academic, technical and community courses, is difficult enough to develop in even the most favourable circumstances (see Section 12). A first-class College has to have the best possible teachers, administrators, and services: it must therefore be an attractive centre - to gain competent staff as well as to win the allegiance of students and the public. The combined population of the Survey Area is large enough for one, and it deserves one: but, if it dissipates its efforts, it may get far less than the best, and the chance of a regional drawing-together may be lost for ever. This hard fact will not carry conviction, unless the alternatives are weighed, and unless the methods of organizing a College so that it will serve the total area are explored.

(c) Alternatives to a Regional College.

The population pattern of the Island has been kept in mind throughout this report. There is no single logical or effective "centre of gravity": the population, and therefore the catchment-area for students, inevitably breaks into certain concentrations. A southern, an approximate (though not truly) "central" area, and a northern region, is discernible. The southern area (around Duncan) is the most compact, the central area (around Nanaimo) is the most populous, the northern area (with Campbell River as the most practical of possible centres) is by far the largest but the most scattered in population.

If commuting is considered an overriding consideration, one alternative is that there be three colleges rather than one. Whether these would be District Colleges rather than Regional Colleges would be arguable; in any case, they would not appear to be legally beyond the terms of the Public Schools Act. They might be practically so, however. The population base for either the northern or the southern area would be too small to warrant a fully-equipped College, or the date of their establishment would have to be put off for several years; or they could be started, even though small, with a considerable chance of being inadequate. This would be less true of the central area. A case could be made for a College which would serve only the concentration of population around and within commuting distance of Nanaimo; or, even more strongly, on the grounds of economical use of resources, for a College which would serve both the central and the southern areas, with a "catchment" deriving from a population nearing 100,000, and utilizing a location somewhere between Nanaimo and Duncan. The argument against this is that it makes no provision for the northern communities at all; or, rather, reduces the number of Colleges from three to two, for the need to provide facilities for the northern area would still remain.

How strong is the case for a separate College in this northern area? The possibilities of expansion here are accelerating. Roads have been improved; the former dependence on water routes is changing at last, so that mainland points are displacing the old island base of Alert Bay; interior highways are becoming practical as extended bus routes show. The new ferry systems create links not only with Powell River but with Prince Rupert. Gold River is projected as having a population of 3,000 by 1967; tiny logging settlements are to become municipalities. The area has been the subject of a community survey, unofficial but with governmental approval, looking to better planning of its resources. These are weighty - indeed heady - facts. Against them must be set certain other facts in evaluating its educational potential. The first and most important is that the distances involved in this vast area - almost two-thirds of the total Island, but with only twelve per cent of its population - mean that a commuting College is virtually an impossibility. Secondly, even with increases in the next few years, the population and the constituency of high-school graduates and others which it provides, would be a dangerously slender one on which to build the resources which an effective College needs. Assuming that it might contribute one-quarter of the total "potential" as assessed for the whole Survey Area, this would mean a minimum enrolment of 170-200. This cannot be dismissed as impossible; but it would undoubtedly diminish radically the chances of building a well-staffed institution with a proper range of comprehensive courses. Moreover, it would be impractical without residences, for perhaps half the students. If residences are an essential part of a Regional College for Vancouver Island (see below), would the students from the northern areas not be better served by living-in for their courses in a main College farther down the Island?

(d) Appropriate Facilities for Regional Service.

(i) The direct answer to the distances, and therefore the commuting difficulties, of the Island, is an appropriate proportion of residences. The prevalence of commuting colleges in the United States and notably California (where nearly 80 per cent of all high school students are reputedly within commuting reach of a college, but where the total number of colleges in the State is over 70) has perhaps led to too great an emphasis being placed on this criterion of easy daily access. As has already been suggested, one of the merits of the regional concept for British Columbia is that it permits planning for wide areas and scattered populations. The vital contribution of the Regional College is its curriculum and its career-oriented instruction, not its possibilities of commuting service. As much commuting as possible is obviously welcome, but geography alone prevents this from being the primary contribution, and economy for the school-building dollar reinforces it. Partial residences will be a first-class investment in the higher education for some communities and School Boards; and they are a particularly logical answer for the communities of the north. It is worthy of notice that the West Kootenay Regional College, which has to cope with extensive geographical scatter, may provide residences (and boarding arrangements) for up to half of its full-time student body.

The arrangements by which student residences could be provided as part of the cost of the college is a matter for exploration, and for mutually-satisfactory agreements worked out between School Boards. Fee adjustments might be incorporated into such arrangements, though standard fees for all students regardless of point of origin, and subsidized boarding rates for those who come from the longer distances, would be simplest to operate. The precedent for this kind of provision has already been established for high-school children from remote areas: it remains to adapt it as a highly serviceable feature of the British Columbia type of College.

(ii) Special kinds of extension services would be in order, for similar reasons to the above, as a means of increasing the availability of the new resources for all the communities of the region. Extension work, not only by the University of British Columbia but also the University of Victoria, has already shown the way. Specially-needed courses can be given by travelling teachers, or on weekends, or by resident teachers for short periods, and so forth. Cooperative arrangements would need to be worked out between the Universities, the School Boards, and the Regional College: it should not be too much to hope that this College might be the active and the most appropriate coordinator for such developments. The experience of the Travelling Library (operated for the Island, from a base in Nanaimo) is also relevant, and can be profitably consulted.

(iii) Eventually, it may well be in order to consider the establishment of a branch campus, perhaps of more than one. Recent experience in California is prolific in this aspect, though it should be borne in mind that it has been generated by heavy population (and usually suburban) expansion, and permitted by relatively wealthy tax-bases. Unquestionably, it will be easier to plan for such a development if a Regional College, buttressed with sufficient resources and experience, is established first; but if the planners must start by looking ahead for two or three years before any facilities at all are established, the branch potential must be fully considered in their plans.

12. The Need for Counselling.

Two misconceptions are prevalent which could hamper the effective development of the Regional College if they were allowed to persist. One is that quantitative computations are sufficient in themselves to establish the need for a College. The other is that the main if not the sole purpose of a Regional College is to serve as a half-way house to the University, i.e. to provide primary "academic" courses. These matters are related, more than might be supposed at first sight. It is not only the number of students which is in question, though a sufficient number is essential for establishment, and too large a number is a matter of vital administrative and financial concern, whether for a University, a School Board, or a College. It is the types of student and their special needs, which are of paramount concern: and it is the ability of a College to cater for some of these needs, sometimes in a way which no other institution can match, that is the true genius of the community college. It will meet them if the need is understood, and if the resources are provided. If there is confusion or substantial misunderstanding of objectives, on the other hand, there might well be great disappointment or disillusionment with the College - all the more dangerous since, in the midst of present-day educational dilemmas, a great deal will be expected from these Colleges at their outset.

A number of indications have already been given, of the variety of educational alternatives and the complexity of career choices which confront the young high-school leaver. They may be pointed up factually by the actual "career map" resulting from the responses of the 1,237 young men and women of Island communities, which is one of the most interesting and significant products of the current High-School Survey (Table 27).

Even though this tabulation has been much shortened from the seventy or more areas listed in the original questionnaire, it depicts a wide-ranging territory. It is to be noted that it is a mixture: of occupations or occupation areas on the one hand, of areas of study, some general, some more specific, on the other. A listing, indeed, which showed (a) all major occupations and (b) the types of studies and training, or even the more "academic" subjects alone, would be highly complex, with much interconnection, frequent alternative combinations, and considerable areas of doubt. Yet it is such a frame-of-reference that a counsellor needs. Certain areas, at first sight at least, are much better-defined than others. If a student is "university material", if he has "academic standing", his course is seemingly clear: he has only to choose his area of study, and the university departments are well-marked guideposts. If he shows aptitude in mathematics, he should obviously take a Mathematics major; if he has demonstrated facility in writing, he should obviously study English. Is it all so clear, however? English or mathematics, and many other basic subjects, can be combined and directed in so many different ways: "literacy" and "numeracy" are basic skills for dozens, perhaps hundreds, of occupations. The professions are another case in point. For the older professions, at least, there are well-worn paths: but "professional content" is the subject of agonized reappraisal in faculties everywhere, medicine and engineering foremost amongst them. And what of the newer professions, and the growing number of sub-professions? Must they all be taught at the university? How should the social sciences, or one or more of them, be studied? Are they, as some would argue, basic to all occupations in the modern world; or are a series of specially applied versions appropriate for different vocations; or are they primarily academic subjects of the same calibre as history? All this, and more, means that the UP student of the past, selected by at least above-average if not superior abilities, and in general the most safely university-oriented, is often not at all sure, when the point of transfer arrives. The designation "academic-technical", now to be applied, is certainly more balanced, and recognizes the divergence of aptitudes which may be present: but the pressing question of career guidance still remains.

What of the "lower echelons"? It is fairly common nowadays to set out an occupational heirarchy on such lines as: (a) the professions (perhaps with sub-divisions into learned professions, service professions, applied science professions, etc.), (b) highly-trained, or quasi-professional technologists, (c) technicians, and technical assistants, (d) craftsmen, artisans, skilled mechanics, etc. This is workable in some degree, and the various educational and training institutions which have grown up over the years - universities, "teaching" hospitals, normal schools, trade schools, apprenticeships, etc. - serve to establish and identify them. But how are the levels of talent and ability - and potentiality - to be recognized, especially in the school? What are the proper components of general as well as technical learning? How far does modern scientific, industrial and technical development cut across all these lines, or even demand radically-revised approaches? Above all, how can flexibility and transferability be maintained, or perhaps even created, whether for young men and women facing the automation age, or older workers whose skills have been replaced?

Table 27. Career Choices, Grade XII Boys and Girls, Survey Area, 1965

Career Area	Boys		Girls	
	U.P.	G.P.	U.P.	G.P.
A. Arts	45	10	52	12
1. English, history, etc.	22	-	18	-
2. Social studies	11	-	12	-
3. Languages	2	-	7	-
4. Arts n.o.s.	8	9	15	11
5. Other	2	1	-	1
B. Sciences	49	1	20	-
6. Physical	18	-	5	-
7. Biological	12	-	12	-
8. Engineering, etc.	15	1	2	-
9. Agriculture, forestry, geology	4	-	1	-
C. Professions, Public Services	147	32	199	38
10. Law	8	-	2	-
11. Health professions	50	21	87	29
12. Education	69	1	88	2
13. Welfare services	17	8	16	4
14. Public services	2	1	4	1
15. Defence and protective services	1	1	2	2
D. Business, Commerce, Finance	37	102	59	146
16. Secretarial	16	59	37	100
17. Managerial	8	23	4	25
18. Commercial	10	14	12	17
19. Marketing	-	1	-	-
20. Financial	3	5	6	3
E. Technical	68	81	71	50
21. Draftsmanship, etc.	3	15	35	8
22. Laboratory technicians	25	7	5	6
23. Automotive	6	6	-	1
24. Electronics	6	15	3	9
25. Forestry technology	4	3	-	1
26. Forest products technology	7	6	-	-
27. Petro-chemical	2	-	-	-
28. Trades (vocational school)	2	14	3	9
29. Home economics	13	12	25	15
30. Food processing	-	3	-	1
F. All Other	9	16	7	10
Totals	404	182	405	245

Source: High School Survey. U.P. students on university program. G.P. students on other programs. More detail of the career categories is given in Appendix D.

These are the kinds of question-marks built into the seemingly solid facts that 15 per cent of the high-school leavers are electing for the professions, more than one-third for arts and science study at universities, 28 per cent for the business world (far more girls than boys), only 22 per cent for technical training. A very small residue indeed seem to remain who are not sure, or who are going directly into employment. How realistic is it for 16 per cent of the students on General Program to aspire to the professions, or are they right in their choice of area but over-optimistic in choice of occupational level: should they be oriented to technical training.

albeit with as much further basic education as they can get? Conversely, should some of the "brighter" students not perceive a bright future for themselves, and again without relinquishing all further opportunities for broadening their culture and intellectual interests, in a technical occupation?

To be fair to the students themselves, they have many doubts. They were asked: "Do you feel you need further vocational (career) counselling? Yes.. No..", and "do you feel you need further educational (studies) counselling? Yes.. No..". Only two per cent of the total failed to respond to these questions, and the answers are presented, in Table 28, in a form which attempts to give significance of the kind sketched out above, to these admittedly rather general questions. [This material is further examined in Part II of the Report.]. More than 50 per cent of the girls, and 60 per cent of the boys, felt that they did need counselling. While there are some interesting variations, the general tenor is that advice on educational plans is needed even more than on careers. Even in medicine, teaching, and social services, where a majority seem sure of their occupational goal, only small minorities are sure of their educational requirements. It is possible to make too much of this: perhaps there are few youngsters who would not welcome some further advice when they have once set their sights (though there are others who would dispute this!). But the consensus is hard to dismiss.

It is relevant to add that one of the outstanding conclusions from the first trial survey of Grade XII students (conducted in three high schools, at the end of the 1964 term) was the wide prevalence of doubt among these students as to their hopes and prospects; nor was this confined to students opting for vocational as against academic next-steps. The overall figures which the more comprehensive (1965) Survey provides, merit another look (28a, following page). More than half, even of the academic-program students, would welcome vocational guidance. It seems permissible to suggest that the proportion of doubt expressed among the G.P. students would be even greater than 60 per cent if so many were not already reconciled to the idea that they must seek a job. How many of them will get into work-study programs or other forms of continuing education?

Transfer and Terminal Courses.

The danger of assuming that the principal function of the Regional College is to provide a two-year bridge to the University is now surely apparent. It is certainly one of its functions, to provide courses which will be acceptable by the universities as equivalent to first-year or second-year instruction, so that the students with this credit can continue their senior years there. But it is not its only function. It is not just another "liberal arts" college. A Regional College does not serve its purpose unless it develops a comprehensive curriculum: it must have technical as well as academic options, and it can provide adequate courses which are of a two-year rather than a four-year span (though there need be no insistence on exactly two years to complete them). The two-year courses can be terminal, carrying entitlement to a diploma: the pattern for British Columbia, happily, has already been well set by the B.C. Institute of Technology. It is to be hoped that courses may be established at the Regional College, provided they are appropriate to Island needs, which will parallel those of the Institute, just as there are certain to be courses, in arts and science and the social sciences (many of them basic to all students) which will parallel first-year courses at UBC, or University of Victoria, of Simon Fraser. But in addition to both "transfer" and "terminal" courses, a comprehensive College has the golden opportunity of developing its third facet, the community service courses, which may take a great variety of forms, without being limited by either academic or vocational objectives. A golden opportunity indeed; but rather one which will rust away to nothing if the College concentrates on trying to maintain identical university courses, and fails to implement the educational undergirding of technical instruction, which can be its special contribution.

These important matters of curriculum are the subject of Part II of this report. They are anticipated here as further reminder of the need for counselling. It cannot

Table 28. Students Who Considered Counselling Necessary, distributed by Career Choices

(Survey Area: 586 boys, 650 girls; 1965)

Career area	Boys		Girls	
	Vocational	Educational	Vocational	Educational
Arts				
English, history, etc.	57.9	94.7	50.0	77.8
Social sciences	54.6	90.9	66.7	75.0
Music, art, etc.	60.0	60.0	42.3	53.9
Sciences, Applied Science				
Mathematics, physics, etc.	43.9	73.2	( )	( )
Biological sciences	41.7	66.7	66.7	75.0
Engineering	56.6	64.2	( )	( )
Agriculture, forestry, geology	71.4	78.6	( )	( )
Professions, Public Services				
Law	53.9	61.5	( )	( )
Medicine; nursing	47.4	84.2	37.1	47.4
Education (teaching)	48.7	84.6	40.0	76.7
Welfare, recreation	47.4	73.7	55.0	75.0
Defence, protective services	33.3	33.3	( )	( )
Business				
Secretarial	( )	( )	54.1	35.0
Commercial	69.2	61.5	62.1	34.5
Managerial	73.5	58.8	69.0	27.6
Technical				
Draftsmen, etc.	70.2	51.1	( )	( )
Laboratory technicians	( )	( )	72.1	58.1
Automotive	65.8	39.5	( )	( )
Electronics	75.8	54.6	63.6	54.6
Forestry technology	79.0	42.1	( )	( )
Forest products	66.7	54.2	( )	( )
Home economics	( )	( )	77.5	65.0
Vocational training (other)	58.3	29.2	64.3	35.7
Employment (a)	63.3	80.0	64.3	35.7
All other career areas	62.8	28.6	44.4	39.0
Total	59.9	61.6	52.6	51.4

Source: High School Survey (high schools in 9 districts). "Vocational" and "Educational" refer to type of guidance checked as needed. ( ) indicates less than 10 respondents in this category: figures added into last item. 15 boys and 16 girls did not answer the question with regard to vocational counselling; 9 boys and 12 girls did not answer this question on educational counselling. (a) Including some employments with on-the-job training.

Table 28a (see p.35):

Answer in Grade XII Survey	UP students	GP students	Total
Vocational guidance needed	432	262	694
Vocational guidance not needed	355	157	512
This question not answered	23	8	31
Vocational guidance needed	53.3	60.9	56.1
Vocational guidance not needed	43.8	37.2	41.4
Not answered	2.8	1.9	2.5

be too strongly emphasized that a Regional College without strong counselling resources will be unable to serve either its students or its community effectively. The massive and richly-varied experience of Junior Colleges in the United States has placed this requirement beyond any doubt. It is now being urged that a standard be set, requiring a ratio of one full-time qualified counsellor for every 350 students. On such a basis, the Vancouver Island college would require two. This is so far ahead of current expectations that this matter has been deliberately brought forward into this part of the Report. There is a lingering viewpoint, which must not be allowed to handicap this new venture, that counselling is not an unduly difficult or exacting function, so that it could be performed on an expediency basis or by "suitable" teachers who give only part of their time to the work. It must, on the contrary, be from the start understood as one of the key functions of the College. This consideration is reinforced by a number of facts which are not generally known. Characteristically, far too many students in Junior College elect for transfer courses (i.e. aim at a university degree program) when they would do better with a terminal program. Secondly, there is a heavy drop-out in the second year. The technical courses, career-oriented though they may be, and balanced as they may also be with wise planning over a two-year span, do not convince enough students of their merits sufficiently early. Families are often at fault here, sometimes far more than the young people who are able to take a realistic view of educational and vocational demands if they are encouraged to do so. An enhanced appreciation of technical ability and training is entirely consistent with today's world: if it can be brought about, it can add a great deal to the "application" which students bring to their work, as well as to their peace of mind.

In order that this argument should not appear to be one-sided, it must also be underlined that a growing number of university graduates are able to say that spending their first two years in a Junior College gave them solid help in their senior years. In California, Washington, and in many other states, the links between colleges and universities have been drawn steadily closer, and the Junior Colleges do in fact provide an increasing quota of the total university enrolment at third year. But it is a safe generalization that a far greater proportion of Regional College students than of typical university students will require assistance. Non-academic students, and part-time students (who have little or no counterpart in the ordinary university) will require more: and the community stands to gain if they receive it.

Job-placement channels, links with the National Employment Service, contacts with technical industrial personnel and with employers, are clearly indicated as appropriate parts of the personnel services of a college, all the more valuable if they can be developed regionally and in some instances nationally. If two full-time counsellors were accepted as the necessary quota, it would be possible for one of them to be a specialist in this area: a background of experience in industrial or technical employment would be invaluable qualification in such a setting. It is also reasonable to suggest that the Regional College provides an opportunity for a fruitful coordination to be worked out between the college and the high-school counsellors throughout the region.

The Challenge of the Regional College.

It would be easy to demand too much of a new college in its first few years - the very gaps in the transitional area from school to work which exist at present, may raise expectations unduly. At the same time, it is necessary to know what a Regional College legitimately can and should do. The partial ideas, that it is only a threshold to the "regular" university, or that it is only another variety of vocational school, die hard: perhaps they will be stilled only by successful demonstration. It is interesting to see how far a group of people attending night classes, i.e. already in an adult education context, many of them taking courses for high-school or university credit, understood the possible scope of Regional College offerings. A test enquiry in all classes which were in session in one district in April 1965 (Table 29), shows clearly that some kinds of courses, notably the academic ones, are far better recognized than others; and that extension courses and technical courses are the least well known.

Table 29. **Awareness of Possible Range of Courses at a Regional College: A Sample Analysis (one School District, April 1965).**

Type of Course	Number not aware of possibility, as p.c. of total	P.C. among these, who were in credit courses
(3) Courses now being offered as Grade XIII	34	17
(1) First two years of Arts	43	26
(2) First two years of Science	46	29
(4) Courses preparatory to professional training	44	25
(8) Community service courses, general interest courses	54	40
(5) Technical courses comparable to B.C.I.T.	55	41
(7) Up-grading courses for promotion, etc.	56	45
(6) Refresher courses for technical or professional personnel	59	46

The numbers in the first column indicate the order in which the items appeared in the questionnaire. They are regrouped to indicate approximate range from best-known to least-known.

The wise assumption is that, to launch the college effectively, educational work is needed. A Regional College with a threefold job is still, for many, a new idea. Its function, stated in one sentence, is to work out a comprehensive approach to the "intermediate area" of higher education. Because it is neither a high-school nor a university, a Regional College has to establish an environment, an approach to teaching, and a community-related policy, which is different from schools or universities and special to itself. This difference must be understood by its sponsors from the start, and it must become more and more obvious to its students and to its supporting public as it grows. Its strength in striking out towards this goal will derive from its community roots, and from the evidence that it is meeting special needs. These include (1) continued learning for all who have the taste or the ambition for it, regardless of age or social status; (2) an easier transition for bright students who should pursue university degrees or professional competences, but might be handicapped or altogether prevented without the College resource; (3) appropriate, satisfying, and career-oriented instruction for young people who complete high school through the general and vocational options; and (4) similarly designed courses for persons, young and old, who have had the tenacity to upgrade themselves to a Grade XII level; in all of this, (5) to make distinctive contributions to the blend of education and practical instruction which is the key to increasing the supply of technicians, on which both economic progress and solutions to the employment problem of the future will heavily depend.

This will not be achieved without certain requisites. It will be necessary for the college to know its student body. The relevance of counselling to this has already been stressed. Social, family, and economic circumstances must also be taken into account: the Survey of High-School Leavers which has been pioneered for this study (and which is further used in Part II of this report) indicates the kind of information which will help. It will be necessary to know the occupational needs of the region and to keep in close touch with changing trends: in a similar way, the Vocational Needs Survey in the present study has been undertaken to point the way. (The questionnaires in use are reproduced in Appendix D). It will be necessary to have a corps of carefully selected teachers, who understand the demands of adult learning, who are fully oriented to the background and special tasks of the two-year college, and who will be ready to shoulder the extended schedule which an "open door" institution must operate. This requires foresight, enthusiasm, and hard work. But the communities which cooperate in establishing the colleges as a focus for these resources will have the satisfaction of knowing they are doing something for themselves and their children which will be a rich investment, and one of lasting value.

Part II

THE NATURE OF A REGIONAL COLLEGE

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PART II

1. THE CHALLENGE OF A REGIONAL COLLEGE

The Regional College is a new concept for British Columbia: in some ways, notably if it establishes itself as a truly regional institution, it may be a new concept even for North America. But as a version of the community college, the two-year College, or the "Junior College", it is far from new. Junior Colleges in the United States now have a history of sixty or sixty-five years: today there are over seven hundred, both public and private, exhibiting many varieties of curriculum and achievement, more than 70 of them in California alone. Accordingly, there is a large fund of experience to be drawn upon. From this experience, one conclusion is crystal clear: that all those concerned with a Regional College, if it is to be a success, must face as realistically as possible both its great opportunities and its great difficulties. This is a "pro and con" picture, not a promotion enterprise powered only by optimism and great expectations: and it must be so understood by School Board trustees, by the College Regional Council, by the College administrators, and by the general public whose support is fundamental. It is proposed, therefore, as the proper introduction to this part of the report, to try to set out these pros and cons.

Opportunities.

The Regional College occupies a special place in the territory of higher and continued education: it has a "golden potential" - to satisfy needs which are not being adequately met in any other way, and to make creative contributions to education. But by the very fact of being in the intermediate territory, - between secondary school and the university, it has obstacles to overcome, and a course to steer. The territory, it must be noted, is by no means the same as that of the United States. For one thing, the regional scope is larger (necessitated by the facts of British Columbia geography and population distribution); for another, American junior colleges frequently operate in the area of trades training which has so far been allocated in British Columbia to a separate institution, the Vocational School. There are other differences to be noted later.

What are the opportunities? A Regional College has a mandate from its community: it has the chance to develop a multiple-choice institution, for many groups who need and welcome further education - young people who see no other way of getting to a university, others who are not sure they want to go to one, older persons in both of these situations, all kinds of people who want training which will give them more skill-competency, or a better guarantee of a satisfactory job, married women who hunger after "stretching their minds", or combining some employment with the rearing of their families, short courses which will fit into many of the personal and community gaps which are showing in this socially complex as well as technically accelerated age. It can be the "Open Door", to use the phrase which has become popular among many colleges south of the Canadian border.

Many educators are demanding experiments and revisions in conventional courses and approaches to learning: the College, unhampered by tradition and able to "start from scratch", is in a position to undertake them (if it can attract sufficiently enterprising personnel). The College is small, by comparison with the hard-pressed major universities at least, so that communication between its faculty, its students, and its advisors, should be much easier. Community-rooted, it should be possible for all these partners in the College as an enterprise to accept and provide its multiple objectives - that education is not only for professional and industrial development, but for personal, social, and civic development in all their phases, as well. Last but far from least in a British Columbia context, the regional college is the logical and appropriate follow-up for the new vocational options in the high schools, i.e., for the students who graduate in Grade XII in other than the academic-technical courses. For people in the community who want to continue their education, this is the one place to which they can aspire that does not raise before them the academic hurdle of the "uni-

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versity-entrance" exams. Related to all of these, the College has the opportunity to develop a flexible curriculum, not only (a) by building two-year programs (which actually may be less or more than this particular time-span, which is convenient for general description), but (b) by facilitating transfers between "technical" and "academic" subject-matter, and (c) through the three-term or equal trimester system, which gives room for manoeuvre for students changing their courses, for men or women "working their way through college", for people studying on various kinds of extended programs.

Dangers and Difficulties.

Two dangers beset every new college: one, that it will retain too closely the character of a high school; the other, that it will strive to model itself too closely to the university. The first possibility is real because a large part of its personnel, administrative as well as instructional, may be drawn from existing high schools; some of its courses may be viewed as only a continuation of Grade XIII; and School Trustees whose experience has been with secondary education may find it difficult to view the college with a new and completely different outlook. The second possibility may to some seem no danger at all. Why should a college not aspire to be a university? Is it not in fact the logical channel to the university, if not already half a university itself? It must be flatly answered that a Regional College is not a university. It must of course develop part of its curriculum in such a way that successful "graduates" can go on to the senior years of a university if this is appropriate for them; and it must have high standards if it is to accomplish this. But (as is argued later) this does not necessarily mean that it should offer precisely the first and second year courses which are standard at UBC or anywhere else. It must set as its goal two-year programs which are of such quality that they will win recognition on their own merits.

Can this be done?

How far the college is willing and able to be creative and adaptive in its curriculum building is a serious issue, not only for its academic courses (which might better be described as foundation courses), but for its technical and occupational courses, and its personal and community development courses as well. In the first instance, the pressure to copy standard university courses will be very great. Some instructors will be drawn from universities where they have been teaching first-year courses: others may have taught them as Grade XIII. But these are not necessarily satisfactory for the needs or the orientation of all college students. There may be instructors who regard the college as a stepping-stone to university teaching; if they do not see response to the new challenges of "open door" students as part of a worthy career, they will be no assets to the college. Occupational-course instructors, on the other hand, may have difficulty in "raising their sights". They have to find methods of combining general and technical instruction, and to be up-to-date and adequate in both. Programs have to be built in areas not already covered sufficiently by the vocational options of the secondary schools, by the vocational schools, by the B.C. Institute of Technology; nor by the professional faculties of the universities (though they may, and often should, provide the courses which lead to them). This can be done: there is in fact more room for originally-conceived career programs than is generally realized. But it will not be done without meeting some resistances (not least from parents, and from some employers who cling to inappropriate tokens of educational attainment). Occupational programs, in short, have to "win their spurs". United States experience shows that some Junior Colleges which developed from technical schools have had to work hard to establish their academic respectability; and equally that Junior Colleges which were originally two-year academies concerned only with "university" courses, who added technical courses to their offerings, have had a constant battle to win equal recognition for the technical courses from their students and their communities. Pressures which are likely to be encountered in developing a strong and well-balanced set of adult education courses are so important that they will require separate mention elsewhere. Yet the overriding fact is that a Regional College must achieve a balance between all three of these. If it is not both comprehensive and flexible, it will fail in its promise. Timidity, taking the "line of least resistance" in its planning, will be fatal: only conviction and imagination will ensure success.

The challenge presented to the College by the special make-up and needs of its students has already been referred to in the first part of this report, and it will be necessary to deal with this again, because it affects admission policy, instruction, curriculum, and counselling. An "open door" institution will have to have convictions about its policy, and be prepared to defend them. The purpose of a Regional College is to provide opportunity for all who can give any promise of benefitting from continued-education experience. Of course, this requires performance from the student: it may often be harder, for the student who has been away from study or who has gaps in his background, to make the grade. But an "opportunity college" cannot be highly selective at the outset. If it were to exclude all candidates who did not have high marks in Grade XII equivalents, it would be shutting out people whom it should seek to serve. Assessments will of course have to be made: they must start early, e.g., in the middle of the first term, and they have to be reasonably continuous. The counterweight of "open door" is selective retention. But these assessments will not be popular unless they are sympathetically understood. It may also be necessary for the college to offer some courses to make up deficiencies for students who are acceptable in all but one or two areas (English and mathematics being the most likely in this respect): if the deficit courses can be carried along with the regular work, they need present no barrier to a practical program, especially for an adult, or a student with re-awakened incentive. But this is not to be interpreted as meaning that "its standards are low". There are ways of serving the disadvantaged student, if the administration is willing to be flexible, and is not afraid of innovation. But for those who are worried about this, it is rather important to remember that the proportion of first-class students in any university is relatively small. (The special exceptions are the small number of outstanding institutions of international reputation - whose entrance requirements are very restrictive indeed). There will be no difficulties for the brilliant student who comes to a Regional College, whether he is virtually certain to continue on to university in third-year or not. And it should not be forgotten that many first-class students need the financial aid which the inexpensive facilities will provide.

There remain the issues of instruction and administration. Obviously a college demands the best personnel and the best leadership it can get. This depends not only on money, though it depends on adequate financing in many vital areas: it depends on the attractiveness of the college as "a good place in which to teach", also. A good place in which to teach is a matter of the other people you must work with, the spirit of cooperation, and perhaps innovation: it is a matter of teaching facilities, aids to lighten or protect the teaching-load, good libraries and up-to-date equipment, attractive buildings and surroundings; and, sooner or later, reputation. There is a danger that enough money will not be voted, or that provision will not be made for extensions, that short-run rather than long-run considerations may prevail, that economies will be pursued, or increasing numbers allowed to burden the teachers and reduce the effectiveness of the facilities without prompt remedy. An "economy" college will produce economy standards, and an economy education; but the belief that a local college should be inexpensive may lead to this kind of false goal.

Some observers are apprehensive that colleges, from a fiscal point of view, will appear to be competing too heavily with high-schools and elementary schools for the taxpayer's dollar. This should be offset, in British Columbia, by two factors. (a) Regional Colleges, vested by their very nature in a number of cooperating School Districts, have a broader base for financing than any single district, so that the burden is distributed. The net burden on the local taxpayer may, in fact, be remarkably low: but like most matters fiscal, this is not likely to gain acceptance without educational work. (b) Colleges will be governed by a separate and independent Regional College Council, thus avoiding the problem which some junior colleges, e.g., in California and Washington, have encountered; the difficulty of disentangling their interests from those of high schools and other educational institutions, even in creating a distinctive image for the college. Standards and concepts which may be appropriate for high-schools are not applicable to a Regional College, and financing will require this new perspective to be applied to all its qualitative features. The clearly-expressed preference for an outstanding site, and for distinctive and seemly architecture, which has characterized the founding of the first regional college in B.C., the West Kootenay College, and which is equally espoused in the Okanagan, is encouraging in this respect. This is reinforced, too, by the dictum of the Academic Board that every effort should be made to separate the college physically from secondary school sites, and its strong recommendation against the use of temporary and make-shift buildings. Examples can be found of junior colleges in the United States which started in these humble circumstances, which have never acquired much status before the day, often long-delayed, when they entered upon a properly-designed "place of their own".

It is argued by many that local control will ensure independence and protect innovation: there are others who fear the cramping influence of an unenlightened community. There are others who are apprehensive that the autonomy of a public Regional College may be in doubt if provincial regulations follow too closely the patterns, well established by time and an efficient civil service, which apply to high schools and elementary schools. Much may depend upon the advisory committees, linking the college to public, employers, parents, which can be set up; and much will depend on the way in which they are used. If its adult education branches are stunted and not allowed to grow, the college may fail to flourish. Yet its personnel may be too hard pressed at the outset, and particularly with its first-year "transfer" courses, to encourage this. It is easy to talk of the need for evaluation, self-study, and research to keep abreast of trends, to take account of new developments, etc: it is much harder to implement this and keep it alive as a serious ingredient of policy. One writer on the subject, reviewing many colleges and many years' experience, has said that colleges must recognize the need for Identity, Autonomy, and Status. There is truth in all of this: one is disposed to add, however, that it would be a crowning mistake to assume that these may be attained by a promotional campaign of "public relations". In education, there is only one final test - the quality of the graduates. If the results are constantly appraised in terms of what the College adds to the men and women who enter its classrooms, labs., and libraries, who meet its instructors and counsellors and mingle with their fellow-students, the college will win its threefold accolade.

2. LOCATION, RESIDENCES, COMMUTING

The special characteristics of Vancouver Island as a region have been fully set out in the first part of this Report. For the Survey Area as a whole, there is no one location which could, even with substantial compromise, claim to serve satisfactorily all the dozen or more local communities in the Island constellation. The plan of a main campus with a northern branch, however, goes a long way towards the major needs. This assures the northern sector (really the upper half of the Island) of a centre which represents the Regional College, and a base on which future developments can be easily and reliably built. Likewise, it makes it much easier to determine a workable location for the remaining communities, although these are far from free of difficulties of their own. In what follows, therefore, it should be understood that a main campus with a northern branch is an essential principle of the plan proposed.

The Central Communities.

The central (more properly, the southern-central) area, if thought of as the Qualicum-Albernis-Nanaimo-Duncan-Lake Cowichan constellation, comes within a range of a little over 50 miles (Table 1). This should not be too readily assumed as commuting distance, and there is more than one problem defying easy solution.

The Albernis are the notable example. Alberni and Port Alberni are somewhat remote, yet not sizeable enough in themselves to justify a College of their own: they would have been even more remote but for the fortunate circumstance of the remarkable depth of Barkley Sound and Alberni Inlet. (Potential college-goers from Ucluelet-Tofino, a small number indeed, but not to be ignored, are almost as remote as some of those from say, Kelsey Bay or Gold River). The situation of Duncan raises a different kind of problem. In many ways Duncan is fortunately placed (almost as close to Victoria as to Nanaimo), and is clearly a junction-point for the Lake Cowichan communities. If the question had ever arisen of a college centre to serve both Victoria and Nanaimo, Duncan would have been a logical location, especially in view of its placement in relation to the Gulf Islands and even the Saanich peninsula. But this possibility has not arisen, and urban and educational developments have now irrevocably decreed otherwise. Should high-school graduates from the Duncan area today look to the University or to the Regional College? They are well placed, in any event. They are better off if they want to go to University than youngsters from any other sizeable centre on the Island with the exception of the Greater Victoria communities themselves. Even for Vocational School, for Duncan residents, there are choices between Nanaimo and Victoria which are almost equally available. As with the Albernis, the population of the local communities does not aggregate enough to warrant a College of their own, and some commuting is inevitable: but at least the choices are wider.

Another consideration deserves mention. If all Alberni students were to be accommodated in dormitories, there would be a case for locating the College in a location somewhere between Nanaimo and Duncan, e.g., at Ladysmith. This alternative must be rejected as unreasonable, however. Students from the Albernis should be given as much opportunity as possible to commute, even if commuting under almost any proposal is onerous for them. This area is the largest of all the communities in the constellation after Nanaimo, and must be accorded an appropriate degree of priority. A further consideration is that a new highway between Alberni and Courtenay, which might bring them within comparable distance of the Branch Campus, is only a remote possibility at the present time: Alberni students accordingly should have the most feasible possible access to the Main Campus, which they would certainly not obtain if it were far south of Nanaimo.

How can a decision best be made? Population (approximately defined) of the "catchment area", and distance, best judged in these days by highway distance, are the two main determinants. The relevant factors are brought together in tabulation form in Table 1, and schematically in Fig.3. Population estimates are available for 1966, relating to the total School Districts, and these should be regarded as major determin-

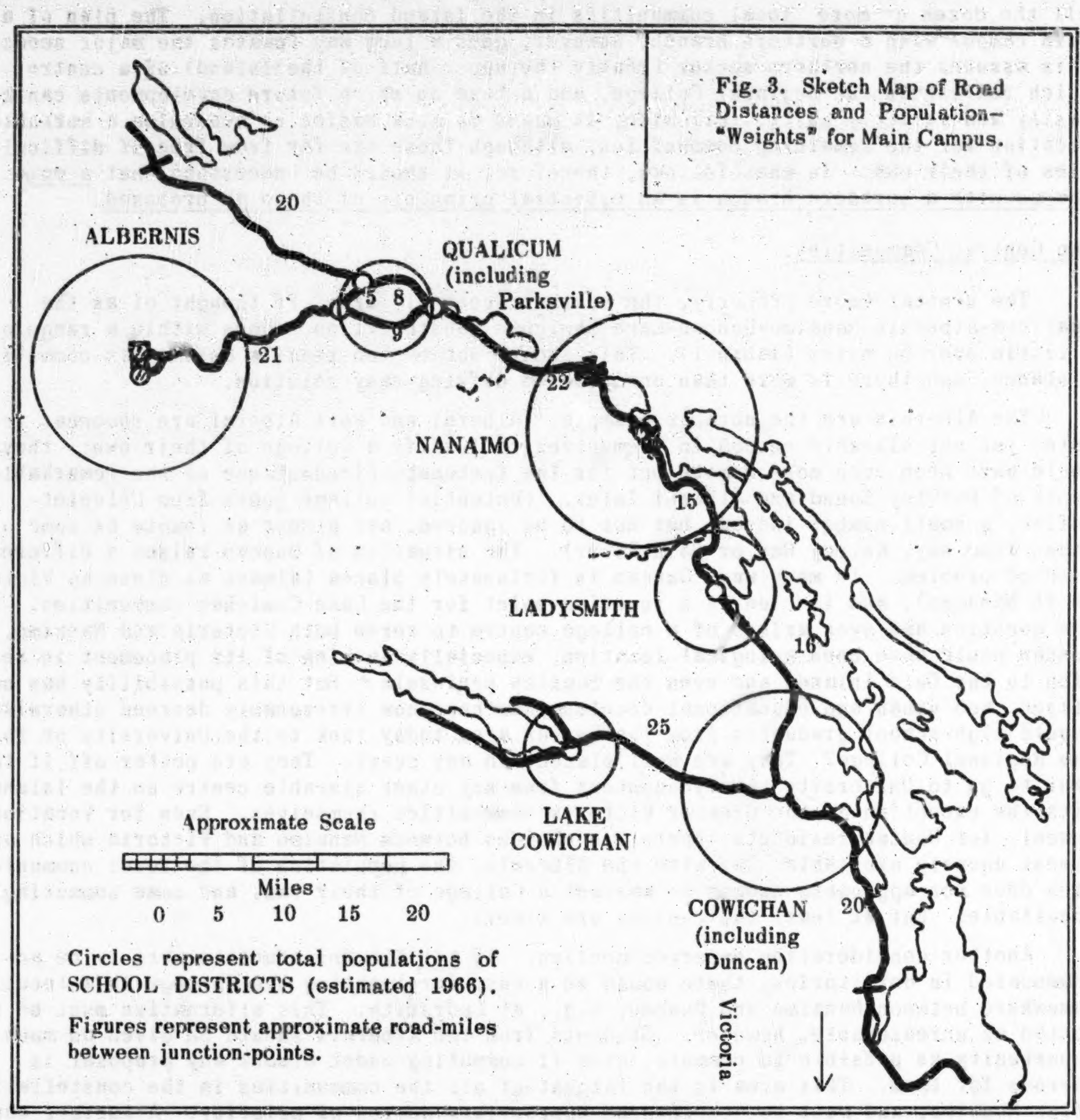

Fig. 3. Sketch Map of Road Distances and Population-"Weights" for Main Campus.

ALBERNIS
20
21
QUALICUM (including Parksville)
5
8
9
22
NANAIMO
15
LADYSMITH
16
25
LAKE COWICHAN
COWICHAN (including Duncan)
20
Victoria
Approximate Scale
Miles
0
5
10
15
20

Circles represent total populations of SCHOOL DISTRICTS (estimated 1966).

Figures represent approximate road-miles between junction-points.

ants, since all potential College entrants, adults as well as recent high-school graduates, are "generated" from this base. However, recent high school graduates are obviously very important indicative figures. Projected forward to 1966-7, they total to over 1,200: but, as has now been well assessed, not all of these will come to a College. The two main sets of data between them point to the relative weight of the "generating areas".

The way in which they are patterned around the largest centre, Nanaimo, can be seen from Fig.3. Measured by 1966-7 (estimated) high-school graduates, there are 320 in the communities south and west, and another 320 north and west, as compared with 380 in the "greater Nanaimo" area. A few more in the south may come from the Gulf Islands; but, on the other hand, the growth probability of particularly the Albernis in the north is high and must also be allowed for. Distances are less equally balanced, but a little over 50 miles is the span between Nanaimo and Alberni, between Nanaimo and the Malahat, and from Nanaimo to a point about 20 miles north of Qualicum. The small communities beyond Lake Cowichan are farthest away, but nevertheless cannot be expected to send more than a few students. The Gulf Islands are within the 50 miles radius, but must reckon with ferry connections. Clearly, a location somewhere near Nanaimo is in order.

The standard procedure for arriving at a calculated "centre of gravity" is to compute student-miles (or population-miles) for all parts of the complex, allowing for the "feeder" alternatives which join at Parksville, Lake Cowichan, and Duncan, and in this way obtain a weighted average for the centre. If no allowance were made for the distribution of population within the Nanaimo district itself, this formula would produce a location 5 miles north of Nanaimo using 1966 population; and one closer to 3 miles, using high-school graduates as the "weights": say 4 miles on average. But this takes no account of the uneven distribution of population in the sizeable area which is comprised in School District (Nanaimo) or of the trend which population growth and building development has been taking. Elementary school enrolment has been brought into the picture to measure this factor: by all odds, it is one of the best sources since it reflects the suburban movement of younger families, and indicates future high-school potential. The main figures are summarized in Table 1b, but the map location of all the schools was utilized in determining the population centre of the School District itself.

The effect of this amplification is to set the appropriate calculated centre about 6 miles north west, of the centre of Nanaimo city, which is still within School District 68 though close to its northern boundary. The relation of this location (marked for convenience on the Island Highway) is shown in the second sketch-map, Fig.4 [For formula plus further detail, see Note at end of this Section. All computations were checked with an engineer-surveyor consultant.] The actual site must of course be chosen with severely practical considerations in mind - size, topography, access and general availability - so that some latitude must be applied to the calculated starting-point. It is worth pointing out, however, that an elevated site somewhat on the model of Simon Fraser University may be feasible here, using high land which would not otherwise be sought for residential development, rather than the waterfront sites which are also to be found here, which would be expensive because of their ready saleability for both summer and permanent domestic real estate.

One of the desirable effects of a location north of Nanaimo is to shorten commuting distances for Alberni college-goers, certain to be at least the second largest from the central-constellation communities. Six to ten miles off the basic Nanaimo-Alberni distance would bring average commuting mileage down to 42-46, i.e., within the 45 miles which is widely regarded as practicable in some areas, notably California. It is questionable whether 45 miles on an all-weather California freeway should be considered really comparable to 45 miles crossing the Vancouver Island spine, in relation to time or to weather. On the other hand, there is also a difference between 90 miles a day by fifty private automobiles, and 90 miles by, say, three College buses. A student from Lake Cowichan might have to come 60 miles each way, or a little less if a cut-off route by-passing the city of Nanaimo were developed. Residences are absolutely necessary: weekend commuting may be the practical consideration, rather than daily travel.

Table 1. Location Factors for College Centre

(Main Campus)

a. School Districts

School Districts	Total population estimate, 1966	Grade XII enrolment	
		1964-5	1966-7
Qualicum	5,700	61	95
Nanaimo	34,500	368	420
Ladysmith	9,100	63	120
Cowichan	19,900	153	215
Lake Cowichan	6,200	78	60
Albernis	27,800	215	320
Total area	103,200	938	1,230

b. Nanaimo Area (City and School Districts)

Constituent	Schools (a)	Enrolments (b)		Area Distribution 1965	P.C. Growth 1955-65
		1955	1965		
City, northern part	4(3)	718	1238	29.3	72.2
Rest of School District, northern part	10(7)	635	1476	35.0	134.8
City, southern part	3(2)	533	582	13.8	9.2
Rest of School District, southern part	9(7)	712	919	21.9	29.1
Totals	26(19)	2596	4215	100	62.3

(a) Elementary schools only: first figure is total for 1965, figure in brackets shows number of schools in 1955.

(b) Grades I-VI only.

c. Distances (Approximate road mileage only)

Directions	Summary
a. **North-South**	**Main Dimensions**[1]
Malahat - Duncan (20)	Malahat - Nanaimo 51
Duncan - Ladysmith 11	
Ladysmith - Nanaimo 15	Nanaimo - Albernis 52
Nanaimo - Parksville 22	
Parksville - Qualicum 8	Nanaimo - 20 miles N. of Qualicum 51
Mill Bay - Duncan 12	
b. **East-West**	
Lake Cowichan area - Duncan (25)	Lake Cowichan area to Nanaimo 51
Parksville - Albernis 30	

[1] These are not the commuting mileages from the calculated College Centre (see text).

The Branch Campus.

The considerations determining the location of the branch campus for the northern area are much less complicated. Two centres, Courtenay (with Comox) and Campbell River, far outweigh all others in population; and the rest of the area, though extremely large in size, contains only a minority proportion (roughly one-fifth in 1961) of the population. Considerable changes must of course be allowed for. If increases between now and, say, 1970 are assumed to be double what they were in 1955-1960, this population picture is likely to become something like the following. The total population (for 1970) may be of the order of 46,000 of which the two school districts, Campbell River and Courtenay, will account for about 35,000. In terms of school enrolment, a figure of perhaps 14,500 is possible (about 3,000 of this in the northernmost area). Seventy to eighty per cent of the school population will still be in the Campbell River and Courtenay school districts. It is obvious that residences are the only practical means of providing for any college-entrants from the half-a-dozen or more small centres in the north, including Gold River. The total number is bound to be very small: the total students enrolled in Grade XII classes this year amounted to 30, and perhaps 65 are predicted for next year. (Some of these undoubtedly, if they are to travel at all, may prefer to seek entrance directly to the University of Victoria, or go to the mainland).

The Courtenay-Comox district is at present the larger of the two urban points, roughly in 60:40 proportion. The town of Courtenay is itself a central point for a small cluster of communities (Royston, Cumberland, Comox, etc.). School enrolments in both Courtenay-Comox and Campbell River districts have been increasing rapidly in recent years. If current rates of increase continue in the next five years, the total Campbell River school enrolment will be of the order of 4,700, that of the Courtenay-Comox area about 6,900.

In sum, these indicators point to the choice of a site between Campbell River and Courtenay, not necessarily equidistant. There is still some balance in favour of its being nearer to Courtenay in the stretch of thirty miles which is available, with the final determination resting on actual sites which are feasible, adaptable, and of sufficient size and distinction. The site obviously does not have to be as large as that required for the Main Campus; but room for expansion (and for dormitories, playfields, parking, etc.) is perhaps even more important.[1] If there are flexible factors here, it is certainly easier to take account of them through the medium of a Branch Campus.

Student Views on Commuting.

In the High School Survey, several questions were asked about commuting, but the results are decidedly equivocal, chiefly because so large a proportion of the graduates assumed they would be able to go to university, or at least stated their preference in this direction (which they were in fact invited to do). Moreover, although the Regional College, and even Junior Colleges in the United States, were among the choices, students were realistically aware that no Regional College was yet available. If one goes to the University of Victoria, or to UBC, from the central and upper Island areas, one does not expect to commute (a vast number do, who live in the urban areas concerned, but this is another matter). The choice between residences and boarding is one of more practical concern, and the Survey shows preferences for resi-

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[1] The possibility of a contingent of students from the Powell River area has been frequently mentioned, especially in view of recent developments of ferry services. For both clarity and convenience, the lines of measurement of the present survey have been confined to the Island. Whether mainland students would be accepted simply through an "off Island" fee, or some other more integrated arrangement should be sought, is of course a matter for the School Boards concerned. It should desirably be discussed at least before the referendum stage.

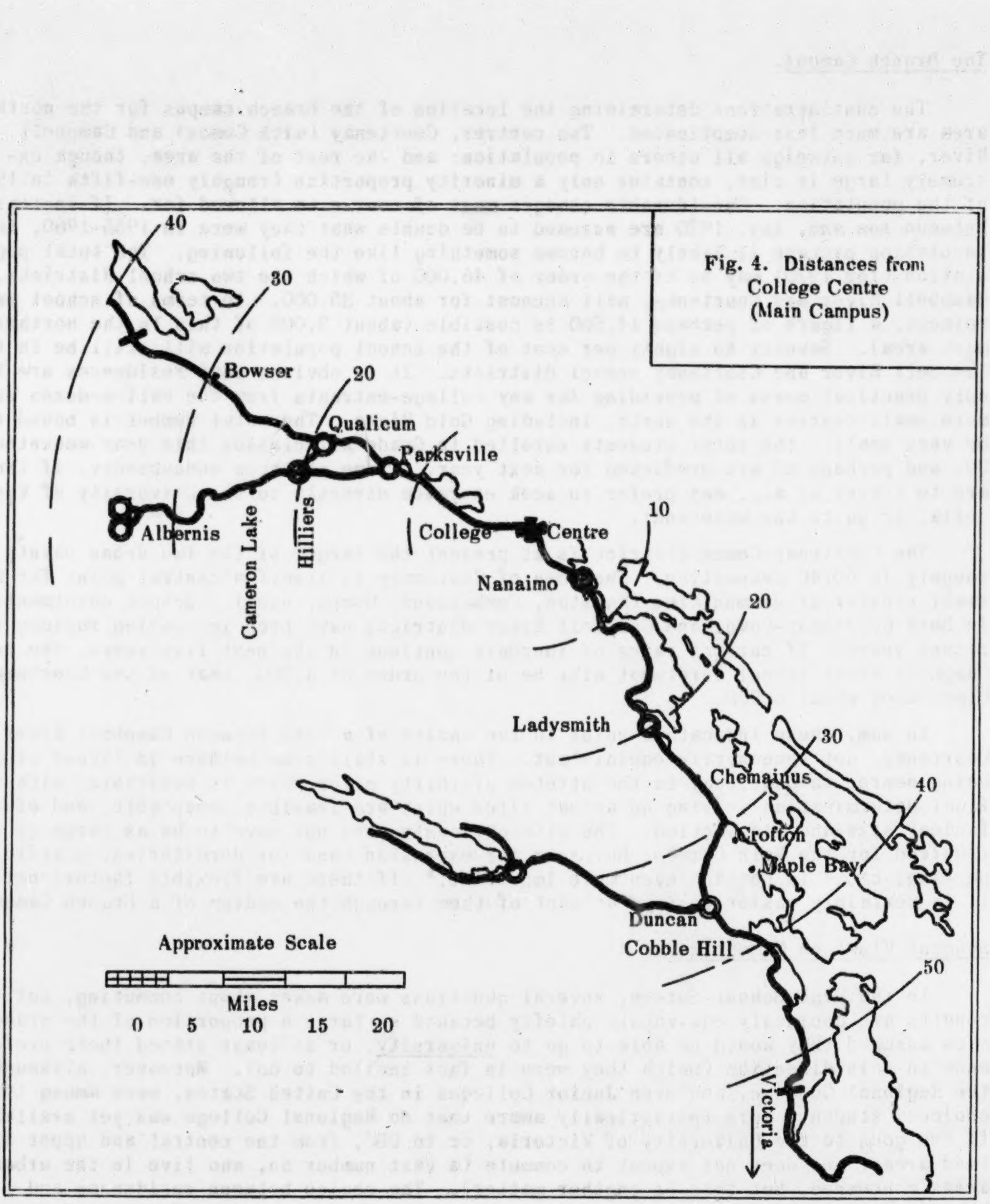

Fig. 4. Distances from College Centre (Main Campus)

40
30
Bowser
20
Qualicum
Parksville
Albernis
Cameron Lake
Hilliers
College
Centre
10
Nanaimo
20
Ladysmith
30
Chemainus
40
Crofton
Maple Bay
Duncan
Cobble Hill
50
Victoria
Approximate Scale
Miles
0
5
10
15
20

dences which are quite marked. It is even stronger, as might be expected, among girls.[1]

That only 28.5 per cent of all the boys, and 22.6 per cent of the girls, should express willingness to commute, should not be taken at face value. To begin with, this is preference rather than intention; secondly, if a large proportion were to go to College rather than university, many of them undoubtedly would commute to make it possible. Hindsight makes it clear that an additional question which should have been asked is "If only Regional College was feasible or preferable for you, would you be willing to commute?" ....etc. Eliminating from the data of Table 2 (and taking boys only) the 14.2 per cent who were not contemplating college or university at all brings the commuters up from 28.5 per cent (of all students), to about 34 per cent (of higher-education aspirants). It can be hazarded that some of the other college aspirants who chose residence or boarding (39 and 29 per cent, on this basis) might also be commuters once the Regional College were in existence: but it is doubtful if this would raise the proportion to more than 60 per cent. Girls, and their parents, certainly retain their greater preference for residences.

All in all, the assumptions which are rather freely made about a two-year college as primarily or wholly "a commuting college", should be questioned. Impressions which are derived either from California, or from city colleges in concentrated urban areas, should not be transferred without qualification to territories such as Vancouver Island, the Okanagan, or the Kootenays. The reaction of students to actual distances mentioned in the High School Survey (Table 3) at least reinforce a little caution in the matter. Only relatively short commuting distances were detailed (up to 10 miles, between 10 and 25, and more than 25): but, of the students who gave some attention to these specifics, there was certainly reluctance to envisage heavy mileages. (The students expressing preference for residence or board are added in the table, in view of the reminders set out above). Some "adjustments" may be made for the students with university aspirations who might actually become College students; but it is certainly not possible to say that this survey reflects any strong orientation to long-distance commuting, even from a student body who are undeniably more "road-minded" than any previous generation. (Roughly as many favoured "bus" as against "car" in the questionnaire choices).

Residences and Transportation.

Residences, therefore, should be envisaged not as exceptions for Regional Colleges, but as an essential facility. It is entirely consistent with the concept of the Regional College as a resource for all the people of its constituent communities, that both residences and transportation should be regarded as legitimate parts of its capital and operating costs. The approximate amount of dormitory accommodation depends on: (a) the total number of students, (b) the minimum radius considered acceptable at which extra commuting costs are incurred (every student will have some transportation costs unless he can actually walk to College, which will be rare indeed), and (c) the proportion of students outside this particular radius. The figures of one hour's commuting time, and 45 miles, are widely quoted in the United States and more particularly in California: but these are surely not reasonable, even for the relatively comfortable conditions of Island travel. Ten hours or 450 miles on the highway week after week, is a heavy burden, which might well take its toll in fatigue, restricted reading, constantly unrelaxed schedules on the campus. And even so, the population constellation of Island College would mean that nearly half of the student body (assuming for the moment only full-time and day students) would have to undertake more than this, if they were not going to live in dormitories. Buses would be much better than cars, of course: a train plus buses would make it simple. For this reason, rail transport is given special consideration below.

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[1] The one exception - Cowichan (Duncan) students, of both sexes - who favoured board, might conceivably mean that many potential students from this area have relatives in either Victoria or Vancouver.

Table 2. Commuting and Residence Preferences, Grade XII School Leavers

(Percentage Distribution, by School Districts, Survey Area)

a. Boys

District	Commute	Residence	Board	N.A.[1]
Northern	33.3	33.3	26.7	6.7
Campbell River	18.0	38.0	32.0	12.0
Courtenay	26.9	27.9	21.2	24.0
Qualicum	43.5	26.1	13.0	17.4
Alberni	30.9	44.7	14.9	9.6
Nanaimo	29.8	29.2	27.5	13.5
Ladysmith	35.7	42.9	10.7	10.7
Cowichan	21.2	28.8	34.8	15.2
Lake Cowichan	32.1	35.7	28.6	3.6
Survey Area	28.5	33.1	24.2	14.2

b. Girls

District	Commute	Residence	Board	N.A.[1]
Northern	11.1	55.6	22.2	11.1
Campbell River	17.7	35.5	12.9	33.9
Courtenay	25.5	42.2	14.7	17.6
Qualicum	30.3	42.4	6.0	21.2
Alberni	20.2	52.6	14.9	12.3
Nanaimo	24.9	39.5	20.5	15.1
Ladysmith	22.2	52.8	13.9	11.1
Cowichan	13.7	27.5	33.8	25.0
Lake Cowichan	37.9	55.2	6.9	-
Survey Area	22.6	42.2	17.9	17.4

The absolute figures from which these percentages are derived are to be found in Table 27, Appendix E(3).

[1] N.A: students who did not answer this question (the majority because they did not contemplate going to University or College).

The conclusion is that dormitories ought to be planned for at least 300 students; and this number might increase to 500 within two years. Contingents should be expected from the Albernis, Duncan and Lake Cowichan: and small numbers from several other points. If all remote students elected to live in the dormitories, the range of the commuters' buses would automatically be cut down, and commuting would become much more manageable. On the other hand, if a daily commuter bus runs regularly to Alberni, some students may prefer to live at home in spite of the commuting time rather than live in the dormitory. Initially there seems to be no alternative but to expect some of each. A survey of the situation after the first year, with opportunity for both students and parents to give their views on pros and cons, would obviously be helpful.

For immediate purposes, the College bus is undoubtedly an acceptable answer to much of the commuting. School Boards on the Island and in many other parts of the province are already well habituated to their operation, and experienced in the matters of their financing and maintenance. No matter what proportions of private-car usage reveal themselves as practical, no matter what plans might be made to utilize the railway as a regional asset, some buses will be needed for a variety of purposes.

Experience indicates that it will be economical, as well as more flexible in every way, for the Regional Council to own and operate a number of buses from a central College depot, rather than to attempt to gear needed services into existing passenger-line schedules, or even to hire buses on a special-commission basis. Commuting will be a "fact of life" for the College, something which will begin and end every one of its week days. Schedules will have to be worked out in relation to classes, and to the geographical distribution of students as soon as this is known after registration; there will also have to be integration with one or two special daily runs which will link the Main Campus with its Branch. Class scheduling, bus scheduling, and geographical distribution of students in the Regional College have to be brought together and determined in a way quite different from time-tabling at a university or even a City College. The most appropriate and convenient arrangements for evening classes can only be determined after some experience in the size and distribution of these classes. At the outset, commuting is likely to be much more localized than for day classes; but experiments and ingenuity should be welcome, to carry out the policy of making the College available to everybody in its region as equitably as possible. Weekends, or "Saturday courses", may be better than evenings; mid-morning or afternoon classes for wives, or mid-morning classes for mothers with children at school, may be preferable to evening classes. If so, buses may be invaluable.

Boarding rates as well as bus charges are obviously factors in the student's decision; and they are also important matters for the College budget. Regard must be had to the major principle already ennuciated: the purpose of the College is to equalize opportunities for the residents of the whole region, so far as this is reasonably practical. In pursuit of this goal, sliding-scales (declining as the distance from the College increases) will naturally suggest themselves: but it is doubtful whether they are either workable or necessary. If a residence is provided for the more remote student, this is the simplest way of bringing him to equality with the student who can live at home. Indeed, there are some advantages to being resident on the campus which he reaps. He can, in any case, return home for some or all of his weekends if he wishes: whether or not the College bus will be available for such students will have to be worked out. Standard rates of board and residence, paid equally by all, would be much better administratively, and more equitably viewed as between students, than rates which varied according to distance (which might lead to arbitrary calculations in some instances). Even for the college buses, it is possible that a standard minimum rate assessed on all students at the time they pay their fee for their student association and other special student services, might be better than a series of rates for commuting students. The bus service itself is the most direct means of aiding the student who has to travel 20 miles or more; all students will on some occasions use the buses (for industry visits, sports events, etc.). The Main to Branch shuttle bus might perhaps be assessed as a special cost in the College bus, and might also incur a partly-subsidized special fare. It is assumed, of course, that both residences and buses will be accounted for on a non-profit basis. University procedures with student residences, and restaurant and cafeteria catering, are now well established for this experience to be utilized: School Boards, as already mentioned, are at home with bus transportation, though the wider and more flexible scheduling required for a Regional College will call for a different perspective, and probably an appropriate management staff.

A Long-Term Consideration: Inter-Urban Rail Transportation.

In the long term, attention will have to be given to a transportation resource of great efficiency, built at a considerable capital cost in the past, but now fallen into undeserved disuse. This is the railway, available between Victoria and Courtenay, operated by the Esquimalt and Nanaimo Railway Co., in cooperation with the CPR. Passenger service is still maintained, the Diesel-powered "Dayliner" running once a day from Victoria to Nanaimo to Courtenay and back. At present it spans the 140 miles of this run in a little over 4 hours; since there are at least 15 intermediate stops, and the train stops at Nanaimo for 10 or 20 minutes, the average travelling-speed is well over 40 miles an hour.

Table 3. Expressed Commuting Preferences

(Grade XII Students: Both Sexes)

Group	Residence or Board	Willing to commute (miles) Up to 10	10-25	more than 25	Total
Main Campus Area	163	128	87	35	413
University preferences					
Boys	69	46	29	14	158
Girls	70	55	35	11	171
College preferences					
Boys	7	8	12	5	32
Girls	17	19	11	5	52
Branch Campus Area	44	50	25	3	122
University preferences					
Boys	17	26	11	2	56
Girls	21	18	9	-	48
College preferences					
Boys	2	3	3	1	9
Girls	4	3	2	-	9
All University aspirants	177	145	84	27	433
All College aspirants	30	33	28	11	102

Source: High School Survey.

The present passenger schedule would not be suitable for the College commuting traffic. But the possibility of five-day-a-week daily runs from Victoria and Courtenay respectively, to Nanaimo or preferably a special point north of it, "College Centre", from which the college bus would shuttle, should be explored with the operating company. There will be two years or more in which to investigate such a plan, before the College is opened; and a not altogether remote possibility that such a plan might have to be reconsidered in the future even if buses and automobiles seem so much simpler and more adaptable at the present time. The railway, especially as a form of interurban (and in this case, regional) communication, has been so much neglected in the last two decades, that it is worthwhile to recollect its particular advantages:

(1) It is by far the most superior method, on land, of moving large numbers of people over sizeable distances at high speed. A hundred people, easily carried by one train, would require at a minimum 20 automobiles; the rail track is a "highway", fully graded and reserved exclusively as a one-way street for a small number of vehicles.

(2) The train, in comparison with cars, ships, or planes, is virtually independent of weather conditions. It can be air-conditioned in summer; but, most important, it is not brought to a complete halt, or considerable danger by snow, and is altogether unhampered by rain.

(3) It can be comfortable as well as fast. It is not irrelevant to suggest that commuting students could read books on their two daily journeys, something which is never done in cars, and is not too common or easy in a bus. Commuting hours could be put to use, instead of being the waste of precious time which two hours of automobile driving per day represents (to say nothing of its fatigue), no matter how flexible in general the car appears to be.

(4) Diesel power, some adaptations of runs and pick-up points, possibly some improvements in track, could all contribute to maximum service. Coordination with class time-tables, at least during the day, would be relatively easy. A train leaving from Courtenay at, say, 6:00 a.m. and from Parksville at 7:15 a.m., would arrive at College

centre at around 8:00 a.m.: a similar arrival would be possible for a train leaving Duncan at around 7:15 a.m. If the Alberni rail cross-route could also be brought into use, it would have the all-weather advantages which are of even greater import for this part of the commuting network, and a departure time of 6:30 a.m. would be quite effective. A decision would have to be made between late-afternoon home trains (say 5:30 p.m.) and a late-evening train (say 9:30 p.m.) which could also accommodate part-time evening students. Evening classes on such a schedule would have to be between 7:00 and 9:00 p.m., a reasonable enough arrangement.

The critical factor is, of course, cost. A number of considerations should be given attention before this cost is ruled out. One is that public money has been invested in enormous amounts in highway building: more is going to be invested in educational structures and services in the next two decades. Some of this "social capital" might well be directed to a vital transportation link. It is even arguable that subsidies on fares (which would assist the railway in meeting its new operating costs) would be simply an indirect form of bursaries - grants made collectively to all students, but with special assistance to those for whom equalized opportunity means bringing them within commuting distance of the college.

Undoubtedly, none of this is even likely to be realized unless a long-term and long-sighted view can be taken. It must be remembered that the college is permanent; and, along with the population and economic development of the Island, it is going to grow. For the future of the highways, this is a mixed blessing. Unpleasant fact though it is to many people, heavy growth is distinctly unfavourable to the continued use of the automobile. Not only do highways become more and more congested, but the private automobile is an extremely costly personal investment: high speed - to face another unpleasant fact - means increasing danger and a mounting death-toll. Colleges must spend more and more on parking space, and on regulatory personnel: in the larger cities, many universities have already had to respond by outlawing the car from the campus altogether. Perhaps these trends are minimal at present for Vancouver Island, and relatively speaking, the college will remain small. But it would be well not to be oversanguine on this matter. Our nineteenth century forbears were as eager to build railways as we are now to build colleges. Perhaps some of their assets from the past might be redeveloped to reinforce our new ones.

Note on Greater Victoria.

It was not part of the mandate of this report to make any recommendations about the sector of the Island not included in the Survey Area, i.e., the School Districts of Victoria, Saanich, and Sooke; but they have of course been kept in mind throughout. (By the same token, liaison with the University of Victoria is assumed as a first priority in the full regional planning of educational services for the Island). If in due course, the School Districts of the "metropolitan" areas of Greater Victoria were to establish a joint District College to serve this area, this would not be in conflict in any way with the pattern proposed in the preceding pages. On the contrary, a Victoria District College could make the same kinds of contribution which Vancouver City College offers within the metropolitan sector of the mainland (supplementary, in its particular case, to two universities, U.B.C. and Simon Fraser). The locations proposed for the central and northern campuses are consistent with such a development; and consistent also with the fact referred to elsewhere (Section 9, also Appendix F) that metropolitan-area and regional colleges have different circumstances which substantially affect their student constituencies and their educational functions.

Note on Location Formulae.

The formula for determining the population-distance centre of gravity of a constellation of centres is

$$c \pm \frac{\Sigma pd}{P}$$

where c is a point of origin, p_1, p_2, etc. the population factors, and P the total population. Populations from the Albernis and north of Qualicum are taken as converging at Parksville; populations from the Lake Cowichan area and above the Malahat as converging at Duncan. "Populations" utilized were (a) Grade XII school enrolment (1964-5 actual and 1966-7 estimates) and (b) estimated 1966 total populations of the School Districts. [All computations and conclusions for this section have been checked with Professor S.H. de Jong of the Department of Civil Engineering, U.B.C: his consultation services, including the preparation of the diagrammatic maps, are gratefully acknowledged.].

The centre of gravity of the Nanaimo School District was judged by Grades I-VI elementary school populations, and by the actual locations of the elementary schools. The 1965 point is approximately 1¼ miles north-west of the original centre of the City of Nanaimo. Expansion has occurred in all directions, but most markedly north and west (109 per cent growth north and west, 1955-1965, compared with 20 per cent south and west, judged by elementary school population).

Measuring along the Island Highway, the centre of gravity for the Survey Area (Main Campus school districts) is 5.3 miles north of the city of Nanaimo (from centre of city), if 1966 population is utilized, 6.5 miles if 1966-7 school enrolment (Grade XII) is utilized. Six miles is therefore taken as a reasonable figure for the calculated or theoretical location-point. To allow latitude in the choice of the most suitable site, an allowance of ten miles would be reasonable.

3. THE STUDENT BODY, and ADMISSIONS POLICY

A community college is likely to have both more young students and more older people than is usual among university graduates: more youngsters because it is a two-year institution, more adults because it offers opportunities to people who have deferred post-high-school courses, or have not been able to take them earlier. There may be a higher proportion of poorly-motivated and uncertain students, and a higher proportion of earnest students very anxious to "make good" but much concerned with immediate objectives. These, and a few other facts which may be gleaned from the rather scanty evidence in this area, are the mixed characteristics which will confront instructors and administrators in the Regional College. They are of obvious relevance to the personnel services which the College should provide, to its admissions policy, to its counsellors, and above all to its curriculum.

For every student of the characteristic undergraduate ages (18-21) there may be an older student, and more likely two, when evening students and part-time students are included. The age-range may sometimes be very large; and equally, there is likely to be a high proportion of married students. None of this means that young students will be unimportant or neglected. On the contrary, the younger students will be more evident, and are likely to need guidance services. Classes will be more mixed; though a wide age-range is not necessarily a disadvantage. But everyone concerned has to be fully aware of the special demands of college instruction.

The adult comes to college because he wants to learn, and to improve his educational and occupational status. He can be a more rapid learner because of his special motivation, and sometimes because he has more "linkages" from his work or his life-experience which he can build into his new studies. On the other hand, he may be a frustrated learner if he hashad an interrupted or unsatisfactory high-school career. Even if he has good natural abilities, he may as a "grown-up" be more resistant to new ideas, especially if his instructor does not win his confidence. Teacher-student relationships are completely different from those of the high school: the adult student must be fully assured that he is not "back at school" in any disciplinary or subordinate way. Teachers must both "gear up" and "gear down" their level and type of instruction. They must gear up, in recognizing the adult status of their students: some of them may well be older than their instructors or more experienced in certain aspects of life. The instructor must "gear down" in certain other ways, because of gaps or lacks in the educational background of their students. Colleges which have pioneered in programs specially designed for older or "mature" students have found that their most important remedial need is principles which will permit the adult to tie together his areas of experience, basic groundwork knowledge to undergird what he has learned in bits and pieces or only superficially; he has to be helped to conceptualize, and to articulate adequately what he is learning anew. An experimental program in Brooklyn College (which gave credits to men and women for some of the subjects in which they were already expert although they may never have had formal training in them) was particularly enlightening in this area; the special programs developed in Minnesota for older women similarly revealed that an important issue is the "gaps to be filled in". On the other hand, both these programs and adult education experience generally confirms the rapid learning-potential of adults if they have once acquired confidence and negotiated the first hurdles. Oddly enough, much of what has been said here may also apply to the young "late bloomer", if his high school years were ruined by social circumstances or by complete lack of an educational goal. If a new program offers him for the first time something "within his reach", he may astonish those who knew him as a "poor" student before.

It follows from this that guidance and counselling in the college may be as important as enlightened and sympathetic instruction, and that both must work together. Both the younger student who is unsure of himself and the adult who may have some serious defects as a student, must not be assessed in routine or conventional ways, whether at registration or before. "Intake" in the Regional College is a highly significant matter. Fortunately, if there are a number of self-contained terms within the year, both assessment of the student's record and guidance on his succeeding course-work can be undertaken more frequently and perhaps with more effect than in a university.

The shorter time-span of the college, it is to be noticed, is very acceptable to the adult. Since he is probably more concerned with results, with "practicality" and career-oriented learning, he is less able to visualize the long pull of four years or more which can be viewed with equanimity by the young man of nineteen. (This is not to suggest that impatience is not unknown among university undergraduates!). What is even more to the point, the older student may not be able to finance more than his two years (or four terms spread over a longer period). He may be married, with a family to support. If he actually has a job, even though an inadequate one, it must be understood that, for him, learning stops earning. There is a strong case for special bursaries for older students with promise: nowhere are they likely to have more salvage value. Other expedients are also possible, including work-study programs, extended courses, courses partly subsidized by employers desiring to encourage upgrading for some of their workers, and so forth.

For various reasons - the commuting "work day", the self-contained terms, the number of part-time students - concentrated lecture schedules and study periods may be unavoidable. Care will be needed to see that this is not overdone: most of all, at the risk of eliminating time for reading, reflection, and discussion - the most essential ingredients of learning. Nor should there be any assumption that the adult or the part-time student is not suited for "serious study" or for "purely academic courses". He may be more so: there are "late bloomers" in developing taste and talent for literature, for history, for philosophy, sociology, or international affairs, and for any of the arts, as well as in the high school grades. Much may well depend here on the stimulation offered by the general education courses which are part of his program. These courses are frankly intended for grown-up citizens. They are also invaluable for students whose previous work has not included studies which widen their horizons in the world of today; they should be clearly understood as stimulation courses designed for the unsuccessful high-school leaver.

Characteristics of College Entrants.

Unfortunately for educational planners, adult-education students are something of an unknown quantity: there are very few definitive and helpfully-oriented measurements. One reason is the bewildering variety of adult education courses. But the other is the size of the "constituency". Potential adult learners are, after all, larger than even the school population, or the university population, each of which has assumed sufficient dimensions today to alert statesmen and taxpayers alike. We now know at least that whether adults "come to college" at all will depend very much on the programs conceived and offered. Far more will take part in community-service short courses, whether for vocational or cultural objectives, but these men and women may not qualify as "equivalent" day-time students.

For students fresh from high school, it is possible to give some firmer indications of instructional issues which may arise, by reason of the data from the High School Survey. The compilation of "career choices" which was presented to highlight the counselling picture in Part I of this report, is reproduced here in another form, i.e. in relation to the general grades attained in their latter high-school years by these young men and women (Table 4). The large proportion of average students (with C grades) is at once apparent. The larger proportion of higher grades A's and B's and C+'s) among the liberal arts, sciences, and professional aspirants are probably an indication of selectivity: it will be important to discover whether such students go direct to university or take their first two years at the college. A somewhat higher proportion of upper grades among the girls (Table 4b) is almost certainly selective in origin; only the "brighter" girls remain in school, while there is also a marked tendency for all kinds of employment-oriented girls to take commercial options. This important material is further summarized in Table 21. It is a fair deduction that both academic and technical programs will have to make provision for a large proportion of "average" students. In detail, this kind of information will only have meaning when it is reviewed by subjects, and in association with other means of assessing individuals. But (unless the high proportion of C's is a weakness in the grading system itself) it is somewhat reassuring that the proportion of below-average students is relatively small. Some allowance should perhaps be made for the fact that this information is "self-assigned", so that some of the poorer students could have upgraded their marks. Yet more than a few of these students have clearly signified their intention of looking for trades-training. They might well change their minds if there is a Regional College. Over all, the important point is that all of these are Grade XII students - the ones who have already come through the selection process of the upper grades.

The same point must be kept in mind in trying to assess the income background of these students and their families. Once again, as much information as possible has been assembled on socio-economic factors in the Survey Area, as well as the Island Region as a whole. It is relegated to Appendices E and F, because of its limitations; but it should at least be looked at as a preliminary guide. A summary for Vancouver Island (from the figures of Table 14) is given on page 64.

Useful as these figures are in themselves (especially as this kind of information is still rather unfamiliar), they cannot be applied directly for college purposes (a) because nearly half of the population concerned live in the Victoria sub-region, and (b) because "rural" includes both suburban and frontier sections as well as a small proportion of farming area. Victorians are heavily represented in both the clerical and the urban service workers of the provincial capital; a much smaller percentage is certainly characteristic of the Survey Area. Likewise, the 28.1 per cent of manual workers in "rural" areas is heavily influenced by logging, whereas the high figures of 33.9 for the total province represents farming as well. The safest assumption is that there will be a large contingent from the families of industrial and manual workers; at least as many as from white-collar families, and most probably more. In the university, the white-collar proportion is higher and the recruitment from managerial and professional class families is very marked.

If the information relating to the occupational background of the Grade XII students (Table 17), is grouped as nearly as possible in the same way as the categories utilized in the above table, the results are as follows: Managerial-professional, 22 per cent; clerical-sales-service, 16 per cent; craftsmen-industrial, 41 per cent, manual workers (including loggers) 21 per cent. The income characteristics of these occupational groupings can be judged very well from Table 18. The relatively high proportion of students from managerial-professional families and from families with incomes of over $7,200 is noteworthy. Other income data (Table 17) point to a selective factor being in operation, somewhat more strongly than occupational data; 39.5 per cent of the families of Grade XII students are in the income bracket of $6,000 or over, only 4.7 per cent from the poorest families (incomes of under $2,000): these figures contrast with 14.5 per cent of all employed males earning over $6,000 on Vancouver Island, and 16.9 per cent earning under $2,000 (Table 13). For several reasons these are not comparable statistics, but these are divergences wide enough to support the presumption that low family income is one of the factors in high school drop-out (and conversely that high income assists retention till graduation). At least the detail set out in Table 19, the first compilation of its kind for Grade XII students, justifies careful examination. If a family income of at least $4,000 is necessary to give a child assurance of going to college, there is evidence here that 10-15 per cent do not have this assurance; and the percentage would be much higher for the high school population as a whole. About 8 per cent of the students come from families in which the father is unemployed, or the father is dead or absent from the family and the mother is the working breadwinner. At least 12 per cent are distinguishable as coming from fairly large families. Among the students who were undecided as to whether they would go to college, 25 per cent of the students on university program stated the need of financial assistance or scholarships as the main reason. Among the general program students

Table 4a. Distribution of Grade XII Students by Grades and Career Choices

a. Boys

Career Area	A-B	C+	C	D,D+	Total
A. Arts					
English, history	3	7	9	-	19
Social studies	1	5	14	2	22
Arts	3	2	13	2	20
Other	1	-	3	-	4
B. Sciences					
Physical	15	8	17	1	41
Biological	1	2	9	-	12
Engineering	10	15	27	1	53
Primary	-	3	11	-	14
C. Professions, etc.					
Law	4	2	6	1	13
Health	5	4	9	1	19
Education	5	12	22	-	39
Welfare	1	2	15	1	19
Public	-	1	3	2	6
Protective	1	2	12	3	18
D. Business					
Secretarial	-	-	1	-	1
Managerial	2	8	22	2	34
Commercial	1	0	7	5	13
Financial	-	2	3	-	5
E. Technical					
Drafting	-	6	35	6	47
Lab-technicians	-	1	3	1	5
Automotive	1	1	28	8	38
Electronics	-	3	24	6	33
Forestry tech.	-	-	18	1	19
Forest products tech.	-	2	19	3	24
Petro-chemical	1	1	5	-	7
Home economics	-	-	1	-	1
Food processing	-	-	1	1	2
Trades	2	2	20	-	24
F. All Other	3	5	21	5	34
Total	60	96	378	52	586

who were undecided doubts about grades and careers were the dominant factors, but one in eight (12.7 per cent) pointed to financial need.

In the High School Survey, the proportion among the students planning to go to university, college, the BCIT, or Grade XIII (taking boys only), who thought their families "could afford to pay $1,000 a year for two years to continue their education", was 30 per cent. The proportion who thought that not more than $500 a year was feasible was 43 per cent. In other words, 27 per cent thought their families could not afford even the halved costs of a Regional College education.[1] It is significant to note also the corresponding figures for the boys who gave other alternatives as their preferences after high-school - employment in-service training, or Vocational School. Only 21 per cent believed their families could manage $1,000 a year, and only 39 per cent saw $500 a year as feasible. Forty per cent of these non-college-goers, as compared with 27 per cent among the others, were thus foreseeing financial obstacles. A great majority in all cases, it should be added, thought they would need to work part-time or at summer jobs, to help finance a period at college, even many of those who thought their families could invest $1,000 a year in them. With all these varied evidences in mind, it seems reasonable to suppose that at least one in four of the younger part of the student body (the high-school contingent) might need special bursaries to facilitate their attendance, and this is basing the presumption - inadequately - on the first year only. The heavy drop-off after the first year, a marked feature in all U.S. experience (see Appendix F), makes bursaries for needy students and, even more, scholarships for promising students, in the second year, a matter of special priority.

Admission Policy and Services.

There are colleges in the United States in which the requirements for admission are not stated in academic terms or standards of marks at all: the college is open to all persons (a) aged 18 or older (b) who show promise of being able to benefit from the courses offered. Can the Regional College's door be as wide open as this? [Flexibility in entrance requirements is particularly essential for the older adult.] It must be remembered that many American colleges include trade courses of the type carried out in Vocational Schools (see Appendix G4) and even some which are comparable to the high-school upgrading courses given in B.C. by the Adult Education departments of School Boards. It is an important principle that a college should not be debarred from offering any course for which there is a demonstrable need in the community, if there is no other way in which it will be available to the citizens of the area, young or old. But a small college, starting with rather circumscribed resources, may have to concentrate initially on major credit courses of Diploma type and first-year college level. There will be limits to both its university-directed ("academic") offerings, and its technical courses; and it will be necessary also to strive for a reasonable balance between the two. This latter objective is not simple, and is discussed from various angles in succeeding sections.

Admission policy must reconcile several objectives. Its first concern is undoubtedly to improve educational opportunity for the students of the area, and as far as possible to equalize these opportunities throughout the region. Both curriculum and organization must be guided by this purpose. The second objective, which is implemented by the combination of admission arrangements and counselling, is to assist students in finding programs in which they have reasonable chances of success. Students with good high school records will have the least trouble in this respect: their difficulty is making a wise choice between alternatives. The High School Survey has shown how large a proportion of school-leavers are decidedly uncertain about their best "next steps", including many who have made at least a partial decision on university-level subjects. (Table 28 and pp.33-35 in Part I). The fact that about 60 per cent of the graduating classes are likely to have C average adds to this reality. The

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[1] The cost of one year's maintenance at university (British Columbia) is variously estimated at $1,200-1,400, and there is obviously room for much individual variation: a Regional College might cut this in half. University fees (U.B.C.) are approximately $350-550, but increases are anticipated: a minimum allowance for books is $50, but double this sum might easily be needed for a program of five or six courses. Alma Mater (student association) fees are around $25. Board rates are estimated at $65-80 outside the gates, $475-630 for 8 months in university residences. Transportation, and many extras, must be added.

Table 4b. Distribution of Grade XII Students by Grades and Career Choices

b. Girls

Career Area	A-B	C+	C,C-	D,D+	Total
A. Arts					
English, history	8	5	5	-	18
Social studies	2	6	4	-	12
Languages	5	-	2	-	7
Arts	5	4	15	2	26
Other	1	-	-	-	1
B. Sciences					
Physical	2	2	1	-	5
Biological	4	2	4	1	11
Engineering	-	1	1	-	2
Primary	-	-	1	-	1
C. Professions, etc.					
Law	2	-	-	-	2
Health	17	29	63	7	116
Welfare	27	22	39	2	90
Education	6	5	8	1	20
Public	1	3	1	-	5
Protective	1	-	3	-	4
D. Business					
Secretarial	9	16	104	8	137
Managerial	3	10	16	-	29
Commercial	1	6	19	4	30
Financial	-	-	7	2	9
E. Technical					
Lab. technicians	7	8	27	1	43
Electronics	1	1	9	-	11
Forestry technology	-	-	-	1	1
Home economics	6	8	19	7	40
Food processing	-	-	1	-	-
Trades	-	2	9	1	12
F. All Other	4	0	12	1	17
Total	112	130	370	38	650

Table 5. Occupational Distribution of Vancouver Island Working Population

(Summary: males only; urban and rural areas, 1961)

Occupational Classes	Urban		Rural	
	Vancouver Island	British Columbia	Vancouver Island	British Columbia
a. Managerial, professional, technical	19.0	22.3	14.3	12.8
b. Clerical, sales, and service workers	33.5	25.1	16.3	12.2
c. Craftsmen, construction, transport and industrial workers	35.3	39.2	38.5	38.1
d. Loggers, miners, farmers, manual workers	11.0	10.5	28.1	33.9
Male Work Force	100	100	100	100

concentration of C's among the students who marked their preferences for technical occupations (without being able to be sure at that time of how they were going to prepare for them) should be regarded with some latitude, since more than half of the U.P. students, and over 60 per cent of G.P. students, expressed a need for vocational guidance. This has already been underlined, in Part I. The story of uncertainty is further told in the summary below, but needs some interpretation. "Definiteness of plan", analyzed in detail in Table 25 of the Appendix, was determined in the High School Survey by several criteria: whether parents had been consulted, whether they approved or not, and so forth.

Definiteness of Plans among Grade XII Students classified by Program

(Survey Area: 1965: both sexes)

Category	All Students			Total
	University	Commercial	Other	
Plans definite	421	100	114	635
Plans doubtful or indefinite	389	93	234	602
P.C. with indefinite plans.	48.0	48.2	66.8	48.6
Total students	810	193	348	1,237

It is a fair generalization that only one out of every two school-leavers has a definite plan, meaning a clear career-objective; among the minority group already in vocational options, it was more like one out of three (though this may change as the options become more accepted, and of course if links with Regional College are forged). The existing commercial option is already much more "self-contained" in this way: it leads clearly to employment, particularly for girls, who are the chief participants in most schools. Once again it may be noted that the situation for girls is simpler. The figures in Table 21b reflect the great concentration in secretarial work; and nursing, teaching, and the technologies could probably do with more candidates. An effective counselling service together with available programs could readily promote some of this redistribution.

Many of the non-academic graduates with low grades signified they would like to go to Vocational School. Present competition may in fact hamper their entrance. Two years from now, if graduating levels are still similar, the resources picture will be different because the Regional College will be available for those for whom technician programs are appropriate. There are additional and unmeasured factors, nevertheless recruits from previous graduation classes, and older persons who may not have standard high school qualifications, will also appear at admission time. Aptitude tests, and some judgement of motivation, are obviously reasonable as well as scholastic record.

Comparative Grades of Grade XII Students in Academic and Non-Academic Programs

(Survey Area: 1965: both sexes)

Grades	All Students			
	Academic	Other	Academic	Other
A and A-	44	1	5.4	0.2
B	111	16	13.8	3.7
B-	178	52	21.7	12.1
C	424	342	52.6	76.1
C-	51	30	6.3	7.0
D	1	4	0.4	0.9
Total	809	427	100	100

A Developmental Program?

The third function of the admission arrangements is to screen out candidates who by all reasonable assessment must be judged unable to profit from one or other of the regular programs available. This statement may be resisted by those who view the wide open door of the Regional College as its most laudable feature. But it is redeemed by three qualifications, and when these are placed in perspective it may be conceded that a realistic admission policy may be one of its greatest services to the community. (1) First, each candidate should have the privilege of taking the appropriate set of general, scholastic, and vocational aptitude tests. If he is decidedly marginal or submarginal, this will be a first step in helping him to face up to his level of abilities: if the briefing session can be constructively handled to show him some of his potentialities as well, the assessment may become positive. If his ability levels are fair, but his chief problem is ignorance of the labour market and occupational alternatives, the second resource of the College may be brought into play along with the tests. (2) This is the comprehensive knowledge of occupational specifications and outlets which counsellors in collaboration with vocational instructors and placement resources, notably the National Employment Service, must develop. Not all of this can be related to College courses: if there are courses suitable to a candidate which cannot yet be given at the College because there are not enough numbers, finances, or instructors to permit such a course, at least it is better for the person concerned to know the kind of course he ought to look for, rather than to harbour the feeling that the fault is in himself. How far such a referral service can be developed, of course, is a matter of long-term policy.

There may still, however, be a third resource. What is proposed here is not new for scores of junior colleges, but could be an innovation in the way in which it is implemented. (3) The proposal is that remedial education and course work, of the several kinds that junior colleges have made familiar, be brought together as a distinct program, the Developmental Program in the regional college's choice of curriculums. The Developmental Program would be one of the constituent programs of the College, equal to them in all respects except one. The courses would obtain credit, but credits only towards "graduation" permitting entrance to any of the regular programs, whether "academic" or "technical". Preferably it should be a one-year program, requiring at least two and possibly three semesters. Courses in it would be available to any of the College's students, some of whom might carry one (as a non-credit course) along with his regular first-year program. It would be open to students not necessarily wanting to follow it up with a regular program, or perhaps interested in it as a threshold to a general education program later, which again need not have any built-in career objective. The way in which the Program should fit into the overall College administration is sketched in the concluding section of this Report: lectures in its courses might of course be drawn from other curriculum divisions. There would be opportunities here for all interested instructors, and for the use of techniques now being developed for remedial work. It would demand patience, and ingenuity. But it would be a welcome resource for the College and its counsellors (who, as part of the instructing staff, would have a double stake in its success): its separation would help to preserve the standards of the other programs, while yet denoting the College's concern to render community service in this particular area. ["College Preparatory" courses are well known in many colleges. They are not well regarded, since they sound like high-school courses, and may well be nothing more. The present proposal, stressing a program, and the possibility of specially-constituted and specially-taught components at an adult level, is deliberately different.]

The claim that the junior college offers a "second chance" to many people is received with mixed feelings by many of its friends. Does this lower its status, or does it applaud its service? That there are people who need it is all too clear in contemporary society: people who have failed in their first-year university attempts, or struggled unsuccessfully with standard Grade XII courses, or left school for work and lost interest in school, or in some other way have lost the capacity for study, concern with intellectual attainment, delight in reading or serious discussion. If these facts demand remedy, the help must be constructive as well as flexible. It is no answer to open the door so wide that it becomes a revolving door - the student enters the College easily enough, only to encounter further failure when he finds himself unable to cope with the College courses. Counselling cannot do it all: the unadjusted student characteristically suffers from a combination of deficiencies: (a) the many psychological, emotional and social elements which make up "motivation", (b) economic, financial or environmental handicaps, (c) lack of occupational goal, which may be primarily informational, or more than this, as well as (d) shortcomings in abilities. Even the latter, the most serious in the last resort, may never have been properly assessed or stimulated. A Developmental Program offers itself as a promising medium, and one which can be better housed within the walls of a community college than anywhere else. It is so important in it's own right, though also so dependent on good organization and careful integration, that the Regional College might be excused if it delayed its full incorporation for a year or so until the regular programs were established. The Sections that follow deal with the standard programs, which will have relatively easy tasks in matching students and curriculum. Perhaps the assurance already referred to should be again stated: the well-equipped student can confidently look forward to a satisfying experience at a Regional College, educationally and socially. And it will be easier for him economically, both to begin, and to stay the course. But admissions policy must be alerted, from the beginning, to the disadvantaged student as well.

4. BUILDING THE CURRICULUM

There is virtually unanimous agreement among all who have assessed the community college that its curriculum should be governed by two principles. It should be comprehensive; and it should be flexible. There are two standard interpretations of what "comprehensive" means. The most familiar is the threefold approach: (1) courses comparable to the first two years of university, (2) technical courses, and (3) community service courses. All of these require further exploration, the third being the least amendable to standardized description. Another well-accepted summary is a fivefold one, adding to the three so far specified (4) general education, and (5) counselling and advisory services. Clearly a community college is not an institution designed primarily for certain intensive areas of work, such as an Institute of Technology, a law faculty, or a department of botany; it is a multi-purpose educational agent, and its emphasis, it has been suggested, is more on "community" than "college".

The principle of flexibility is variously defined as meaning that the college should be free to adapt its teaching to the nature of the area it serves, and specifically to the needs of its students; that its courses and educational undertakings should not be routinely time-tabled, and should be open to experiments and adjustments which will fit education into peoples' work-lives and their leisure-time; and that transfers should be possible, where they are desirable, between at least the so-called "academic" and "technical" courses, if not between these and some of the other areas. Community service should have some of the fluidity that extension work in universities has made familiar - evening lectures, workshops, study tours, three-day or two-week institutes, correspondence courses, record libraries, all of this for plain educational advancement, or "non-credit", as well as for certificates and diplomas. Counselling and advisory services are needed, (a) primarily because a much wider variety of students are to be expected than in a restricted-entry institution, and (b) because a variety of technical offerings including pre-professional and, in a sense, pre-university courses, raise the need for educational and occupational choice. The community service possibilities raise the need for liaison work if not of some counselling, too.

General education is a constituent partly derived from the community service or "extension" approach, better described as adult education, i.e., the recognition that many people want to broaden their education, whether by filling in gaps of the past or extending it to meet the demands of the present and future, rather than toearn degrees. It derives also, however, from a different point of departure altogether: the conviction that all education and all training ought to have certain common "core" or basic elements whatever may be the manifold developments now demanded by the specialized advancement of knowledge, occupational subdivisions, the professions and the quasi-professions, industrial and social technology. This conviction has remained with all educational thinkers over the centuries; "general education" has gone through several cycles, and curriculum builders have sought to apply it in elementary schools, secondary schools, private schools, universities, even in nursery schools, and certainly in adult education or "continuous learning" as some would now prefer to call it. If it is hard to pin down, the tenacity of the central idea appears to substantiate its essential validity.

Seen in this perspective, it is easy to understand the difficulty of planning a curriculum for a comprehensive, multi-purpose college. In the history of junior colleges, there has in fact been much purely piece-meal evolution, and much trial-and-error improvization. A new college has a choice. It may follow this well-worn path; or it may strive for better integration from the very beginning. It will be salutary to set out the main problems as starkly as possible:

1. The first-year university courses have been universally described as "academic", with the double consequence of giving them a remote flavour, and setting them off mentally against the "technical" courses, with the implication that the latter are inferior or at least a second best.

2. The "academic" courses have been geared as exactly as possible to the comparable courses in the university, partly from slavish imitation, but particularly because the concept of a college as providing the first two years for students who will then transfer to university, has been paramount.

3. Far too many students, some in spite of counselling and some because of its inadequacy, have registered for "academic" and "transfer" studies, even though the technical programs are available, and have failed to complete them. It must be remembered here that "academic" also includes "pre-professional": far too many students have set their sights at a profession in spite of lacking the abilities needed for it.

4. Technical courses have ranged very widely, partly because of the uneven history of technical training and partly because of the split between industrial and vocational training agencies; and the educational components have too often been narrow, superficial, or ignored. Some community colleges, along with some technical schools, have done some of the best work in developing a really integrated curriculum. But there has been far more adaptation of mathematics and the sciences closest to engineering, than of the humanities (including language) and the social sciences.

5. The adult education work of the community college (with the special exception of encouraging older students to resume studies for "regular" diplomas and degrees) has rarely, if ever, achieved equal importance with the other primary branches of "academic" and "technical" programs. Evening divisions, while they have flourished, and are now growing faster than ever, have frequently blurred the focus of adult education rather than sharpened it.

Some First Principles: Vocation or Education?

To contemporary educators and governments, there are now two broad alternatives from which a choice must be made, in meeting the twin needs of great numbers of young citizens of college age, and the great demands of modern technology. The first alternative is to develop two sets of learning and training "channels": (1) the university, which with all its proliferation of professions is still strongly grounded in humanitarian studies, and long-term ones at that, (2) technical, technological and vocational institutes, of greatly varying kinds, with marked emphasis on the physical sciences or, more accurately, a number of applied sciences. (It can still be argued that the university is the home of the sciences proper). The second alternative is to combine education and technology, or at least to preserve or create inter-relationships between them, whether this is done from the point of view of improving training and career-preparation, or the more basic one of enlarging the knowledge of an educated person.

It may be argued that a good professional course at a university already effects this combination; that the engineer, the doctor, the lawyer, to say nothing of the university-graduate business executive, is adequately versed both as scientist and humanist, even as social citizen. But there are many who take leave to deny it: and the widespread concern of many professions, of the business world, and of those concerned with modern government personnel, with the revision of curriculums, the setting up of refresher courses, with new goals of "continuous education", testify to this doubt. Even so, the professions, for all their importance, are a special case: their post-secondary education takes four, six, eight years or even longer still. What of the great majority of occupations whose members never get to university at all?

One response to this situation is to re-organize, improve and coordinate the existing institutions supplying technical training of various kinds; to raise their level and increase their breadth, and in effect to bring them to university status. This is now the course set in Britain, following the fundamental survey undertaken by the

Robbins Commission.[1] The lines of organization have been drawn through a vast tangle of training schools, institutes, polytechnics, normal schools, vocational and commercial courses: the applied sciences will have university status in the Colleges of Advanced Technology, educational institutes will become faculties of universities, and so forth. And many new universities are to be established, several of them with innovational curricula designed to bring the sciences, the humanities, the social sciences into closer relationship.

In all this ferment of educational reconstruction - and it is general, be it noted, not only in Western Europe and North America, but in the Soviet Union, and in the rapidly-developing countries of Africa and Asia - the question still remains: how are the bridges to be built between the secondary schools and these various levels of higher education, whether they are better-coordinated and well integrated or not? Are there to be two sets of channels, the one emphasizing applied science, the other something else? It is a reflection of our difficulties that the term "academic", which is likely to be used for this "something else", is quite inadequate. It may indeed be grossly misleading, as a term for the blend of civilized understanding, the social, educational, and civic skills which are now needed for the future adult of the late twentieth century. Can a core or common channel be constructed, which will continue to strengthen these foundations, yet permit (and if possible facilitate) the choice of specializations which all occupations eventually force upon us? If it is added - and most people will concede it - that applied-science occupations particularly need the leaven of humanistic and social studies, then the importance of the common channel is further reinforced.

This is the larger perspective of the two-year college - the one which the curriculum-builder as educator must have in mind, while the curriculum-builder as career planner must look to the practical demands of occupations, and the changes in the application of technology to work processes, and the curriculum-builder as administrator (in the area where instructor and counsellor meet), must concern himself with the varying abilities and adaptabilities of students.

Some First Principles: Adaptability.

The field of vocational guidance has become so complex that many educators hesitate to embark on it at all; or, more often, compromise with the difficulties by dealing with only particular sections of it. Yet a College which is career-oriented in its curriculum must give attention to the occupational requirements of the modern world in broad perspective; it must ponder the educational implications, not the demands of technology alone. Specific training - for one defined job - is, relatively speaking, easy. It is difficult enough in detail, of course, even in keeping up with current accelerations in knowledge and technique: but seemingly much more reassuring to the young entrant to technology, as compared with the student taking a B.A. - in the terms of its requirements (school grades, course credits, laboratory schedules, etc.), as well as the nature of the conditions, chances for advancement, and so forth. Many of these career descriptions, it must now be faced, are less solid than they seem. On all sides the warning is being uttered that formerly well-established skills and trades may be obsolete before long. The need for re-training will arise, everybody agrees. But there are very few prescriptions as yet, as to precisely what kind of re-training. To another narrowly-defined skill which may, in turn, become outmoded?

The new approach to career preparation, at least at levels below that of the professions, is steadily coming into clearer view, and it demands an educational, not merely a training approach to curriculum:

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[1] Higher Education in Britain (Robbins Report): H.M. Stationery Office, London, 1963. The elevation of technical education is not the only issue. In several quarters there is concern to remove the gap between "the two cultures" (humanities vs. science), the social sciences are particularly appropriate bridges. A number of experiments in integrated curriculum have been launched, e.g., the University of Sussex, which has "areas of study" rather than specializations.

(a) There are several areas of knowledge which can be perceived as "basics" to many of the new skills and technologies and occupational requirements. It is easier to illustrate them in general terms than it is to specify their new components: but the use of language, and mathematics (both referred to later on) are good examples. Educators concerned with this are trying to stress "numeracy" as well as "literacy", as twin fundamentals. Obviously these are foundations for dozens of occupational competences. But exactly how is mathematics to be adapted to electronics or structural technology, or business management, and by whom? And what is generic, competent "literacy"?

(b) Career preparation in the late 20th century should be in terms of groups or "clusters", of related occupations: not only for economy of teaching resources, but also to facilitate individual choice (including choice in the earlier stages of educational preparation if possible) and to permit the possibility of a change of occupation, perhaps with some re-training or "refresher" work, later on.

(c) Emphasis on adaptability is greater than ever before. It was always valuable for any individual enjoying a creative or independent niche in the world of work: but most types of job-training have come closer to narrowing rather than broadening the routines, and the areas of competence. Today, the new skill needed in a widening range of jobs - manual, clerical, service, supervisory alike - is the skill of being able to change, to learn new developments, which may require extensive study, as well as new directives in the occupational performance itself.

(d) Finally, though it is not yet taken as seriously as the new guideposts already mentioned, education should prepare for the New Leisure. Shorter hours, curtailed working weeks, holidays with pay, even less physical effort as such, will place a premium on knowing what to do in free time, and being able to enjoy it. Dire predictions are not wanting today on the dangers of boredom, idleness which is unprepared for or unwanted, purely commercialized sport and entertainment, apathetic television viewing, "instant" literature, diluted and vulgarized culture of the "masscult" variety, and the lack of a sense of participation in general. The fact that both the youngest and the oldest parts of the population have increased relatively to the middle and major working group is highly relevant. The problems of premature retirement are being aired in all kinds of popular literature: it is not quite so well understood how critical the issues of "leisure" have become for many adolescents - because they have more freedom, more spending power, more gadgets and automobiles, sometimes because they have no satisfying employment, or no job at all. It is hard for the present generation to reverse the assumption of a lifetime and of many previous generations, namely, that education is preparation for work. There was a time when education was only for the privileged few, and its purpose was preparation for the cultivated life of a "gentleman": steadily in Western Europe and in North America, it became more and more the requisite for occupational performance, for everybody. The story of the 19th century is that of the steady broadening of the educated occupational groups, starting with manual workers and farmers, extending to craftsmen, then to machine operators, and finally to a vast proliferation of clerical and white-collar occupations. Now, not only have all the technical requirements accelerated, but two other educational requirements have become equally important. (a) A truly educated youngster is one who will have skills, tastes, and drives to ensure that he will have interests over and above his work. Not only for his own satisfaction and happiness in life, be it noted, but for his spouse, his children, and his community. (b) A truly educated youngster is one who will be able to play some part as a citizen in a larger and much more complex society than his parents or any other forbears ever knew. Technical competence, avocations, citizenship: these are the threefold requirements. There is grave danger that only one of them - the occupational - will gain attention, and even that this may be incorrectly or too narrowly interpreted. The Regional College has the chance to approach its curriculum building (including its facilities and its extra-mural activities) with the breadth and novelty this challenge demands.

General Education.

This is the new background of "general education". Volumes have been written on the subject, what it is and is not, and how to provide it. It is an old rather than a new subject, so that one of the problems in approaching it is that the term already has a special meaning to some people that is not necessarily in tune with the events which have brought it anew to the educational agenda, and particularly that of the Regional College. It is associated in some people's minds with the liberal arts, or the humanities, or even the "classics". The Arts curriculum of the typical university, based solidly on "English" (variously defined), history, and languages, is one approach to general education. It is actually an evolution, a long and rather slow one, from the ancient colleges of England, and Europe, with North American adaptations, which have only gradually extended to mathematics and the sciences, and even more recently to the social sciences, with certain subjects (such as sociology) still regarded as newcomers, not yet accorded the distinction of being essential in the first year of university. The relation of geography and history to "social studies", with ups and downs that have even yet not reached stability, is another example of the situation. An interesting sidelight from a completely different direction is the creation of Bachelor of Commerce degrees in the twenties and thirties as a means of providing a professional type of education for young businessmen, which was eventually succeeded by a strong reaction against it: the new preference was a return to the "liberal arts" (in newer forms) as a means of providing the "well-rounded education" which everybody now agrees is desirable. The older professions, notably medicine, and some of the younger ones, notably engineering, have been wrestling with attempts to inject more of the arts and humanities, and sometimes the social sciences, into curriculums both heavily crowded and threatened with ever-increasing specialization. Nor is this the whole story, for curriculum-building in the elementary school, and even in the nursery school, is properly concerned to discover what is basic, and what will blend, to prepare the young child for a balanced, adequate, and preferably a stimulating and creative life.

Against all this diversity and difficulty, what is to be sought for as general education in a Regional College? It may be well to start by questioning whether the issue arises at all. Why not settle for arts courses already established in the first year of appropriate universities, so that they will be immediately recognizable and acceptable as "transfer courses"? And as for technical courses, are they not removed from general education by their very nature, directed only to specific vocational skills? The answer is that neither approach meets the realities of which educators, especially in the intermediate occupational areas, must now be aware.

Arts courses are far from stable, settled, or free from controversy. "New" subjects crowd in with demands to be heard because of their direct relevance to the contemporary world; "old" subjects seem to merit elimination or at least reconsideration as compulsory requirements. Basic knowledge about man in all his aspects, and the nature and imperatives of civilization, has proliferated and expanded: specialization is a problem in history or English or social science almost as much as in chemistry or physics. Technical education, secondly, is far indeed from being a simple "practical" story. In spite of efforts to do so, it cannot be divorced from other kinds of knowledge without becoming limited as technical "know-how" lacking theory, understanding of principles, applicability, and adaptability. Mathematics, physics, chemistry are essential, even though there may be a multitude of ways of adapting these sciences. English courses, likewise, in the sense of "communication skills", as the engineering profession and many junior colleges like to term them, are essential not only to the ability to learn, but also in various aspects of social relationships which are still paramount for the technician whether he works for a large corporation or a large governmental administration, or indeed for the public at large. It cannot "all be done" by mathematical formulae. Nor can a democratic community tolerate the doctrine "just teach me how to do it; let others concern themselves with why". If it does, it may end up by finding that the few who are left to decide the "why" are not to their liking; or that they, the technicians, are merely the highly-trained pawns of a Brave New World.

Some of the possibilities of modification in the general arts curriculum are set out below. Even apart from such changes, what are the possibilities of matching, combining, or marrying general (or "academic") and technical courses? There are a number of differences which it will be helpful to distinguish.

(a) A course exactly comparable to current university level, e.g., English 100, Mathematics 100.

(b) A course of specifically applied character, of which there are now many examples in mathematics; as intended for electrical engineers or electronics technicians, for surveyors, for construction specialists or architects, etc., etc. Applied physics, in radar, etc., is even more differentiated, if indeed it has not become a further variety of applied mathematics.

(c) A course which is deliberately designed for "refresher" or upgrading purposes, i.e., one in which a major purpose is to acquaint the learner with new knowledge, improved techniques, etc., but which assumes some existing, possibly extensive, cognizance of the subject.

(d) A remedial course is best regarded as a separate undertaking in its own right; though it may have some of the elements previously described, along with teaching methodology geared to the handicapped learner. There are also important differences in applicability as between the very young and the adult learner. Even though, as special cases, remedial courses are not on all fours with the others differentiated here, they demand a reminder because some of their content must necessarily be concerned with basic subjects.

(e) Finally, there is the possibility of a general course which has a more "self-contained" objective than any of the above - a groundwork presentation of a subject (such as geography, or international affairs, or the elements of the social sciences, or physical "science for the ordinary man", etc.) developed because it is a necessary component for an educated person. Such a course does not necessarily "lead to others", like the first-year Arts course, or the mathematics preparatory to electronics; it is neither for transfer nor technique, but a supplementary to ensure that the technician understands something of his place as a human being in the world or his responsibility in society. Geography, history, cultural anthropology, sociology, political science, among others, offer these possibilities. What lends special force to them is the fact that even in the best-designed college, a great number of students will only be there for one year. This year is precious in the Regional College. It may help many a student to "find himself" and at best will spur him towards a technician's diploma. But it should realistically offer something which will stay with the student whenever he leaves. If there is something which the well-organized general education of this type "leads on to", it is further reading, self-study, interest in the world; in short, adult education, or continuous education in later life.

Stated in this way, and separated out from other kinds of general (or generic) courses, it will be apparent that this proposal is similar to the "foundation courses" that were worked out and incorporated into many American universities thirty years or so ago, under such names as "Contemporary Civilization", "Social Survey" courses, etc. They were built in to the first year of Arts or Science, in possibly all faculties, as a compulsory ingredient with all the more conventional first-year subjects. Clearly they have a similarity of aim with Social Studies as these are designed in the high school of today. They also share subjection to the same criticisms: that they try to cover too much ground, that the disciplines are "diluted", that they do not encourage or lead the student to thorough mastering of one topic. Are these sufficiently valid to justify giving up any attempt to provide social understanding in addition to career training, to encourage wide as well as specialist interest in the world and in work, and (to repeat) to make special efforts for the student who is not sure of four years in a university, and may be indeed at the most critical stage in his life? For his future attitude to education is what is at stake.

The case for some general education courses, unrelated directly to either "transfer" or technical objectives, should therefore be reopened in the curriculum plans of a Regional College. They should be pointed not to career, in the ordinary sense of the word, but to leisure, citizenship, social awareness, perhaps not least to personal achievement and the growth of self-confidence. Here it should be added that a number of junior colleges have experimented successfully with "personal understanding courses" designed to help students come to terms with their abilities and with vocational choices, requirements, and limitations: these may be presented as Occupational Survey courses or as a special kind of Psychology 100. Unquestionably, these can be useful: but it should be clear that they are a complement to, not a substitute for, courses directed to social understanding, the nature of the world, the structure of environment, governments, societies, communities. It is social as well as individual awareness which is the illuminating ingredient of the educated man.

Against this background, curriculum planners must be alerted to attempts by educators concerned with the faults of current university education, to find better ways of doing the job. Not all of these are dependent on subject-matter: tutorial systems, small classes seminars, essays rather than examinations, ways of liberating the student to use library and audio-visual materials, outside visiting lecturers, public affairs debates, are among these means; and they are adaptable to the college. But sooner or later they must come to grips with the curriculum as such. It is a helpful exercise to review the principles of "generic education", which were formulated by a faculty committee, representing many disciplines, which advocated a comprehensive restructuring of the first two years of the Arts offerings at the University of British Columbia a year ago. [Discipline and Discovery: A Proposal to the Faculty of Arts of the University of British Columbia, U.B.C., Vancouver, 1965.] The essentials of these proposals are therefore summarized for reference in Appendix G(1).

A Threefold Curriculum.

There is a solid reason for this preface to curriculum decision. It is hoped that parents and employers, not the College administration alone, will give heed to these considerations. Too many parents accept "entrance to university" without enough regard to "the subjects to be studied": too many employers demand high school graduation without regard to its content. If they insist on the old, and do not appreciate the new, the college will be forced into a conventional pattern, and its willingness to experiment will rapidly decline. The students, i.e., sons and daughters, and potential employees, will be the sufferers.

A college is free to formulate and offer a General Education course, designed for those who do not envisage going on to university; and it has to provide general courses for those who elect for a technical program, particularly in the first year. The simplest way is to have a first year which is much the same for everybody, with emphasis on "key subjects", (English, mathematics, history, etc.) as well as a number of "electives" or optionals, with this choice determined by whether the candidate is university-bound, as an arts or science major or an entrant to a profession; or is training for a vocation; or just attending to "get an education". The simplest way to do this is to model the courses on the first year of the appropriate university, especially since a majority of students will assert that they want "transfer" credits; and the result is that the first year of the college will be virtually the same as first year in a university, except that its choice of electives will certainly be smaller. Perhaps only one-half or one-third of the students who take this year will actually continue - even into the second year, let alone a university. Some of them will go on to technical (so-called "terminal") study. This latter number will be a small proportion of the total college enrolment: U.S. experience amply demonstrates this, but in any case, technical courses will not be adaptable to large numbers (for reasons of laboratory work, equipment, and field study alone) for some time at least. Some of the general education students will be discouraged, or will settle for the first year's "exposure" anyway, even though the courses were not self-contained, but seemed designed as if to lead on to something else.

A discriminate approach is to design three diploma courses, given suitable titles to suggest their equality in status, but differing in content: and to plan each as part of a two-year program:

1. Academic Diploma Program;
2. College Diploma Program;
3. Technical Diploma Program.

The first-named would be designed so as to be suitable for all pre-professional students (with some optional variables according to discipline or profession): it would be of university standard, not necessarily of rigid "university specifications". The third would be appropriately designed for the student electing technical-occupation training; it would have the advantage of being able to combine technical and general subject-matter from the beginning, and throughout his course; it would deliberately encourage the student to make his choice, equally, at the outset as well as helping him to visualize an integrated program stretching over a span of two years (or much longer if he were on a work-study program, or an extended span through evening classes and employment). The second program would be general education without the commitments of either Program 1 or 3 (though with the possibility of transfer not relinquished, for students willing to make up requirements not yet attained).

Four units would be needed to complete a Diploma. There would be flexibility, from the separate-term timetable and evening courses, in completing the program. A certificate could be awarded, given satisfactory grades, for two terms' work: and this could, of course, be built upon later if desired. Not the least important recommendation of this system is that it is a logical extension of the new options now set in motion in the high schools. It provides in effect a comprehensive college as the counterpart of the comprehensive high school. A College Diploma as the accredited recognition of completion of two post-secondary year's work (in essence, a Grade XIV) is already approved under the Public Schools Act. [This pattern is already being pioneered, perhaps in even more flexible form, at the new Vancouver City College. Some examples of programs are reproduced in Appendix G. (See also Fig.5 in Section 9).]

"Foundation Units."

Besides its other obvious advantages (including its relevance to the counsellor's task), this procedure would give new opportunities for innovation in "general education" (better described as foundation-unit) components. Possibilities such as the following could be developed:

1. Science and the Modern World.

A review of the physical and biological sciences. Their contribution to scientific thought, historically and today. Their main applications, distinguishing public and private, national and international areas. Implications for society, the educated person, the alert citizen.

2. The Humanities: their Individual and Social Contributions.

The scope of the humanities (literature, art, music, etc.). Their history, and their contemporary situation; including comparative examples (18th century Britain, 20th century North America; Oriental, European, Mexican, native cultures, etc.). Individual vs. social aspects of the arts.

3. The Social Sciences: Understanding Contemporary Society.

Historical review of the study of society. Branches of social study and their differences (economics, political science, cultural anthropology, sociology, psychology, etc.). Scientific study of social problems: possibilities, uses, limitations. Relation to education, technology, career planning, citizenship, etc.).

Three basic "foundation-units" such as the above, might simply be described as Sciences 101, Humanities 101, and Social Sciences 101. Complete in the first term, they could be followed in the second term by Sciences 102, Humanities 102, and Social Sciences 102 which would develop aspects of each area more intensively: the particular topics being at the discretion of the instructor, who would make use of his special interests or experience. Projects, library study, and (quite readily) community undertakings of several kinds might very well be part of the second instalment. Most valuable could be a course which, though called Canadian History, would interweave Canadian, American, British, and international history, which did not forget to cover the differences affecting Quebec, and which sought to emphasize social and economic as well as political factors. Equally a course which, though called World Geography, would deal with Canada comparatively, utilizing climate zones and resource-regions elsewhere, which are both comparable and different, as the means of illuminating the effects which Canadian geography has had upon the community nationally and regionally.

No apology ought to be necessary for suggesting courses which, some will say, "ought to be taught in high school". Whether they are taught there or not, the fact is that these integrated approaches escape many university students, especially the entrants to specialized faculties; and they are needed for the several classes of students who are not recently out of high school, or, for other reasons are in the need of a newly synoptic "fresh look" at education. Other options would be needed for students who have not only gaps in basic learning, but deficiencies in their capacity to learn, and in the all-important area of occupational choice. It is for this reason that a course, commonly called Communication Skills, has been developed in many U.S. colleges (and has long been utilized at Vancouver Vocational Institute). It would not matter if this were catalogued as English 101, so long as it covered some of the essential subject-matter of remedial reading, composition, vocabulary, and public speaking. Another might be Career Orientation, a course which offers an ingenious opportunity for combining study of aptitudes, psychological and educational testing; labour market information, personnel work, and job-specifications; technology, management, the professions, automation, and leisure. This might by Psychology 101. It is, of course, eminently designed to be given by the counsellors in their instructional capacity.

There is one subject - Mathematics - which can most easily stay in the curriculum without change from the standard nomenclature (though its content has in fact changed radically), and it is most likely to be in heavy demand. The reason is its essentiality for technological studies. Even here, however, as every Junior College and many Technical Institutes have demonstrated, there is a place for "adapted" courses of mathematics, quite possibly several of them for appropriate purposes (engineering, electronics, construction, laboratory technicians, surveyors, research assistants, etc.). For students who are not proceeding to a technical course, of course, they will not be required. Likewise, students who are already specializing in Mathematics (there are many of these today, though there is also a distinct tendency for them to go directly to universities, especially since scholarships are available for bright students) may prefer to stick to "pure" rather than applied courses. It is arguable, however, that even the student who is specializing in mathematics - usually because his capacity for this subject has been demonstrated in high school - should be advised to take Sciences 101 as a necessary ingredient in his general education before he goes on to any further mathematics courses. There is real danger - educators are able to trace its rise since the first "Sputnik scare" - that the youngster who shows mathematical ability in the early grades will be encouraged to further and further concentration in maths., which will support him easily as a "top student" from high-school to university and on to graduate studies, without his getting much other kind of education at all. He is obviously a "science student"; yet he may be ill-prepared in his knowledge of the physical and biological sciences as such. In the humanities, in geography and history, in the social sciences, he may be positively poverty-stricken. Possibly not many such students will make their passage through the Regional College: if they do, however, it would not be amiss if their general education were aided and given better balance by their College sojourn.

Lack of balance, however, is not a risk confined to science students, or any other students who specialize. It is a common danger which confronts almost all educated

persons in the modern world. Students in the liberal arts need a better knowledge of science. All students need a sympathetic acquaintance with the arts; and all students need some social science. If a Regional College can achieve some forward moves in general education for its special student population, it may extend its influence far beyond its own walls. The community benefits would be inestimable.

5. CAREER ORIENTATION

There is universal agreement that a Regional College will be a great asset to the constituency it serves. In one way or another, the great majority of employees who responded to the Vocational Needs Survey expressed this view. But there is need for clarification on the subject. To begin with, it is not at all certain that everyone is able to identify with a region rather than with their local community. Parochial self-interest is stronger, the more the centres are isolated by sizeable distances. Secondly, industrial and commercial development, which will certainly be aided by the expansion of technical training, is not necessarily synonymous with social development. The social resources of a region depend on the people who live there, the extent to which their talents are stimulated and made available, the clubs, societies and associations which keep recreational and cultural interests alive, the facilities and buildings, private and public, summer and winter, which provide these activities with community meeting-places. In a small town, the school may be the only common centre it possesses, and sometimes this is not available for evenings or weekends. Welcome though they are, and cooperative though the School Board may be, cramped classrooms are not ideal for adults, nor are gymasia suitable for concerts and plays. Commercialized sports and a constant diet of television are not the most productive of original initiatives and community participation. By the same token, the tourist trade, highly relevant though it is to the scenic beauties, the wild life resources, the recreational facilities of the Island, is apt to have too much claimed for it. It is at present highly seasonal; and it is too easily thought of in purely commercial terms. These limitations can only be overcome by a comprehensive approach and a broad plan of development. Public facilities should enhance the lives of the residents as well as attract the tourist. (This is well understood by municipal Parks Boards and by both federal and provincial parks services: a balanced combination of development - citizen as well as tourist, public as well as private - has been registering gains in Victoria).

Improved educational resources are obviously a vital ingredient in all community improvement. But principles of conservation have to be recognized here, as much as they now are in the enlightened treatment of national resources. It is a hard and unpleasant fact, but one which must be stated, that better educational facilities, whether technical or academic, will not by themselves "build up the economy". They will be seized upon by many individuals as the means of leaving the community, if there are no offsetting incentives to induce them to remain. The frontier character of much of the Island contributes to the liability side of the balance-sheet. The desire of many youngsters, sometimes openly expressed, is to "get away". This may make them earnest students, but their "career orientation" is not home-directed, and it may be unrealistically set towards the university or a profession mainly because this seems to offer big rewards in the big city. On the other hand, since local personnel have not been available, technicians, specially-skilled workers, supervisors and managers have been "imported" from elsewhere (sometimes from "the mainland", more often from eastern Canada, the United States, or Europe). If this picture is to be changed, the recruitment of talent must be a two-fold operation: better use must be made of the local "education reservoirs" of young manpower, but there must also be jobs for them - jobs which justify the terms "career" and "opportunity" by reason of their salaries, the attraction of working conditions, the interest shown in the development of skills, the encouragement given to competence.

In the development of technical courses by Colleges, there is unanimous approval of the device of the Advisory Committee (and in the case of British Columbia, this is incorporated in the new clauses of the Public Schools Act relating to colleges). It is important to recognize at the outset that there is a choice before members of the College's advisory committees. They may assume very limited functions, directing their efforts almost exclusively to setting up a course, after which committee work may languish. Or they may take a broad and continuing interest in the college, helping it with facilities, personnel, work-study schedules, donations, and so forth; helping also in the assessment of the course, and looking to the future for needed changes. Obviously, for all instructors concerned, this kind of advisory committee could become an invaluable resource, for technical knowledge as well as career information and placement opportunities for students.

Planning the Technical Courses.

There are three steps in deciding on the vocational curriculum: they are all interrelated, but nevertheless represent three different stages in the process of formulating the right curriculum. (1) What is the basic industrial and employment structure in the region at present? How much is it changing, and what changes or developments would be most desirable? (2) What are the interests of all employing agencies, industrial, commercial services, governmental institutions, health, welfare and recreational agencies, etc., - in personnel of all kinds whose education and training could be assisted by the College? In what ways and at what points can these interests be enlisted cooperatively, in advice, facilities, placement? (3) What choices should be made between the many courses which suggest themselves as possible or necessary? This latter is a most realistic task: not only because teaching personnel and even potential students may be too scarce for some otherwise desirable courses, but because there may be priorities - in both immediate and long-range benefit to the area - to consider; because there are many types of courses possible (and the first concern of the college must be with balanced two-year programs); and because some types of training greatly needed in the region may still best be provided by other institutions.

To simplify this part of the exposition, a distinction is here made between "core" programs and "auxiliary" courses, and attention is confined in this section to the former. The latter are dealt with in Section 6.

There is actually a fourth stage for the college administration, and this is (4) the registration and counselling arrangments concerned to inform students of available courses and assist them in making appropriate choices. These are reserved till Section 7.

It is not the purpose of this Report to write out the detailed curriculum blueprint. This responsibility must await the deliberations of the principal and his senior staff; and the advisory committees attached to all technical courses also have the specific function of providing a two-way channel on this subject. The institution of the Vocational Needs Survey, however, was a deliberate effort to lay the groundwork for future planning in this field, and the main results can profitably be reviewed.

A fair indication of the economic pattern of the Survey Area is given by the summary compilation in Table 6. While the survey was able to make contact with nearly ninety "employing units", as well as the main trade union locals, comprising in all over 11,000 employees, it is not complete in certain areas. Very small firms, stores, etc., and employers not likely to be interested in college trainees, were omitted. Agriculture is not represented, but this does not mean that its importance, notably in the Duncan districts and the Comox valley area, is not recognized: it must receive proper consideration in any plans for the college. The highly important fishing industry is not represented in Table 6, but the view of the U.F.A.W.U. on technical trends and needs were obtained, and considerable comment and information was supplied by the Fisheries Research Board, the B.C. unit of which is located near Nanaimo. Mining is the other extractive industry which it was not possible to cover in this initial survey.

Several features may be discerned in the overall figures. The overwhelming dominance of logging, and of forest products, (lumber, pulp, kraft, plywood, etc.) shows up more in this sample than it would in a full count of all employment. Between them they represent nearly 70 per cent of the total. Logging, it is to be noted, still employs more than the mills in this part of the world, and this would have been more marked if it had been possible to include more of the smaller firms in the survey, but the amount of employment (not necessarily production) has been steadily diminishing, mechanized cutting and hauling being a major reason. The giant plants of the three or four major

Table 6. Size and Types of Employment in Industries Covered by Vocational Needs Survey

(Survey Area, Spring 1965)

Industrial Area	Supervisory Technical	Clerical, Office	Sales	Maint-enance	Operating	Total
A. Logging (11)	263	117	7	435	2839	3661
B. Forest Products Manufacturers (5)	311	189	8	829	2830	4167
C. Utilities (12)	57	81	22	73	309	542
D. Construction, Industrial Services (13)	43	35	27	14	238	357
E. Public Services, Communication (10)	194	108	11	87	209	609
F. Health Services (8)	361	79	-	21	234	695
G. Banking, Real Estate (8)	36	100	61	3	1	201
H. Retail Trade Tourist Service (21)	83	58	340	26	100	607
Total sample (88)	1,348	767	476	1,488	6,760	10,839

The figures in brackets indicate firms, companies, branches, offices, etc., treated as employing units for the purposes of the Survey. In addition, questionnaires were answered by trade unions comprising several locals throughout the central and upper Island.

(a) Includes municipal governments, School Boards, libraries, radio stations, newspapers.

(b) Includes hotels, automobile service. Excludes teaching staff: excludes also seasonal employees of Fisheries. Research Board (Nanaimo).

Table 7. Some Indications of Employment Trends

(Vocational Needs Survey Sample)

Industrial Area (a)	Change 1954-1965(b)	Estimate of Employment 1965-1970			P.C. Female Work force (1965)(c)	Total work force (1965)
		Less	same	increase		
	P.C.				P.C.	
A. Logging (11)	-1 p.c.	2	6	3	1.3	3656
B. Forest Products (5)	+47 p.c.	1	1	3	3.3	4167
C. Utilities (12)	-8 p.c.	-	4	8	26.8	611
D. Construction, Industrial Service (13)	+79 p.c.	-	3	10	6.7	357
E. Public Services, Communication (10)	+53 p.c.	-	3	7	23.0	604
F. Health Services (8)	+43 p.c.	-	2	6	84.7	695
G. Finance, Real Estate (8)	+112 p.c.	-	3	5	55.2	201
H. Retail Trade, Tourist Service (21)	+35 p.c.	1	5	15	48.2	610

(a) The figures in this column show the number of units who answered the questionnaire. Data in all columns except the first are based on these samples.

(b) Not all employers were able to supply figures, hence the numbers on which these percentages are based are less than the total sample. There are always variations between industrial firms. Percentages accordingly are given to nearest integer only, and should be treated as indications rather than as exact measurements.

(c) The percentage of female employees in the total work force enumerated in the survey was 13.5; the corresponding figure for Vancouver Island (1961) was 26.2 per cent, reflecting the much greater variety of occupations available to women in the Greater Victoria area.

corporations, and particularly those of MacMillan-Bloedel, are of course the largest single employers. In the last decade or so (Table 7), employment has continued to increase, more than offsetting the big reducations in the logging workforce which have characterized the Island (as well as the mainland operations) since the war. A large part of the future of the economic base of the Island is written in the signs of employment trends (Table 7) and types of employment (Table 6) if these can be sufficiently interpreted. Still confining attention to Groups A and B in these tables, it is to be remarked that at least some logging units predict reductions; that by far the greatest number of operators (i.e., manual workers of all grades of skill) are in the two forest-industry branches; that a very large quota of maintenance workers (becoming increasingly important with automation) are in the forestry products plants; that the numbers of clerical and office workers, relatively speaking, is rather small; and that, with the latter as the main exception, the proportion of women employed in these staples of the Island economy is very small.

Supervisory and technical personnel, because of their direct relevance in curriculum planning, call for special mention. In the forest industries they account for nearly three-quarters of the sample. This is a very mixed group, of course, and future surveys will undoubtedly provide much more detail in these critical areas. The figures are only provisional, moreover, for another reason. The total (361) in health services (Group F) is large because nurses are included; whereas teachers are not included in the enumeration for public services (Group E). The precise definition of "technical" is important because it undoubtedly in these figures includes both professionals and "semi-professionals" or "sub-professionals". "Supervisory" also includes managerial personnel of various ranks.

The utilities (power, water, gas, etc.), construction, and some industries which in this compilation are included as auxiliary industries (ironworks, chemicals, heavy machinery servicing and repair, etc.) are significant because they constitute the balance of manufacturing and related industry after forest products. The other sources of employment are the "secondary" and "tertiary" ones, trade and services. While construction and the utilities are highly important technically, and both will become more so in every development which opens up the Island further, the utilities are not heavy employers of labour; and even construction, once the great user of manpower, including unskilled manual labour, has become more and more a mechanized set of operations. By the same token, however, the technicians that they do need are vital to them. What the relative weight of Groups C and D reflect is the fact that the Survey Area, and even the Island as a whole, are seriously lacking in secondary industry, notably light manufactures. These not only give more balance to the local economy, which is otherwise drastically affected by reductions or shutdowns in the main mills, but help to provide a more diversified demand for labour, including skilled and semi-skilled employments suitable for women. While it would be impossible to expect the College to have sole responsibility in this matter, it is not unreasonable that it should be kept in mind in the broader context of vocational planning: how far can subsidiary and auxiliary industries be aided through the provision of skilled personnel, managerial as well as technical? Some Junior Colleges in the U.S. have helped to keep small industries alive by offering courses in Small Business Management; but this is much easier in large cities than in frontier regions. Wood products utilization, food processing, and possibly mineral products utilization, obviously invite the most exploration: the college cannot be envisaged as a technical research centre - this might be a private, or corporation, or university undertaking - but it could be a ready ally in some of the personnel aspects. If nothing more, this points to one suggestion: that the various advisory committees should not be too self-contained, specialized and "watertight" - there is a place for an occasional Vocational Needs Evaluation Committee, with a representative from each technical group, and persons inside and outside the college concerned with placement, to look at the balance, or lack of balance, in the technical offerings. Such a committee will of course be able to make more of a contribution once the college has been in operation for a few years, has accumulated records of its graduates' jobs, and has conducted further surveys on the lines of the present experimental one with (it is to be hoped) more intensive detail.

Service Employment.

Service occupations, by and large, are a somewhat neglected sector of the labour market. They are important for a variety of reasons. To begin with, they have registered, everywhere in North America, to say nothing of Western Europe, the biggest increase, often while skilled manual occupations, and certainly unskilled ones, have declined. Prosperity and an expanding economy, as well as urbanization and many aspects of social technology (including household services, and recreation) give rise to new services. Mass communications, health and welfare services, governmental operations, education, all need personal services for which, at least so far, automation is not a complete substitute. A wide variety of skills, training and educational qualifications are relevant, ranging from the pre-established professions, through nursing, accounting, etc., to a proliferation of clerical and data-processing occupations to "new" occupations such as airline stewardesses, medical librarians, or television interviewers. Many of these occupations are favourable to young people, and to women. It is no accident that American Junior Colleges have developed a considerable number of special training programs in response to these developments.

Each of these will need specific scrutiny. What is in heavy demand in California may have little relevance on the Island or even in British Columbia: small-scale beginnings with different orientations may be the wisest course. Tourism is only one example, but a very important one for this region. What are the most strategic needs, remembering that restaurant and hotel management is now an intensive course at BCIT, while cooks are being trained at the Vocational Schools? Is there room for an imaginative program for a few selected candidates which will adapt them not only for immediate employment, but for futher development as "tourist aides" in government or private service, which will be completely attuned to local resources?

The Views of Employers (a) Industry.

All the employers canvassed were asked to discuss current technical trends, to pinpoint areas of shortage or difficulty in recruitment, and to suggest the kinds of training which their own experience indicated as most necessary. This resulted in a large store of information, from which it is useful to sift out here the matters on which there is greatest consensus; and it is relevant to do so primarily for the middle range of skills - typically referred to as those between the fully professional and the clerical; or between the university graduate and the high-school product. Against the labour-market background previously described, it is also convenient to present the suggestions for the industries in two groups (A-D and E-H respectively).

The views of spokesmen for the logging industry and the forest products plants come so close in general consensus that there is no need to separate them. Virtually all of them express a need for upgrading of educational and vocational qualifications at all levels - mechanical, maintenance, office, and supervisory. The jobs most difficult to fill are technicians in forestry operations, topographers, surveyors' assistants, assistant engineers. Draftsmen are needed; accountants between the "high-school clerical" level and the professional accountant; and supervisors in all areas - mechanical, maintenance, divisional heads, in hydraulics, personnel work and industrial relations. Two-year courses which appear as welcome include all technical forestry training, special accounting courses adapted to forestry, and similarly-oriented courses in business management. The trade unions in this field add to the list of needed technicians, forestry management and conservation personnel, safety and workmens' compensation administrators: and favour as courses which they would welcome, commercial mathematics of appropriate kinds, trade union management, and industrial relations; courses in the social sciences and on modern social problems are desired on all sides, but political science, economics, sociology, and social welfare are specifically mentioned.

The utilities require electrical, power, and radio technicians, engineering assistants of all kinds, and draftsmen: but mention such specifics as distribution (line crew) supervisors, and specialists in customer service with knowledge of new methods and products. Construction men refer also to the need for specialized salesman and advisers with knowledge of modern construction practices who "know how to keep up-to-date" with this kind of knowledge. Courses recommended, besides those for engineering assistants, and technicians in power, electronics, instrumentation, modern construction, extend to supervisors, "middle management", and personnel services. The construction industry suggests estimators and appraisers, construction supervisors, design draftsmen; some of the auxiliary industries suggest technicians in such areas as refrigeration, corrosion, instruments, and conservation. The Fisheries Research Board has an intimate knowledge of technical research needs, and is able to specify such courses as time-lapse, infra-red, and underwater photography, laboratory techniques in microscopy and water analysis: but it is interesting to find that, besides computer programming, electronics, and mechanical drawing, they could utilize trainees in technical and scientific writing and reporting, "corrective courses in English composition", research investigation techniques, and languages (Russian, German and Japanese being among those mentioned). It is clear, of course, that the presence of the Research Station makes technical courses in marine biology and oceanography as much a "natural" for this region as forestry-products technician training is by reason of the giant wood-using plants which are the Island's biggest sources of revenue and employment.

The Views of Employers: (b) Services.

The public services are aware of a wide range of needs: building inspectors, assessors, park maintenance and horticulture aides, botany assistants, educational television technicians, recreation supervisors and community recreation organizers. Courses are recommended not only for these but for municipal administration, local government and city managers, town planning assistants, regional planning and development personnel, accountants and executive secretaries. Not only newspapers but broadcasting units and education departments today need reporters, writers, photographers, and visual-aid and display technicians.

Health, welfare, and education services are special cases. There is no doubt about the needs. They have been crystallized, with the medical profession leading the way, because the basic professions themselves (doctors, social workers, teachers) have intensively-organized training facilities, standards, and entrance requirements. Intermediate occupations must therefore be fitted into the hierarchy of training and operational practice, and new training programs must receive the advice and sanction of the appropriate professional bodies: but, on the other hand, it is easier to set up the specifications for technicians, "aides", etc., once this development is approved, because of the roles and functions of professionals and supervisors are already standardized. Thus a series of paramedical occupations are now organized through the BCIT, particularly medical-laboratory technicians[1]; a program for social welfare aides (assistants to professional social workers) has been inaugurated at Vancouver City College. The possibilities and status of teachers' aides is still under discussion, but this subject is being pursued in several provinces. So far as the training of professionals themselves is concerned, there is of course every reason for the college to explore the offering of undergraduate and "pre-professional" courses for teachers, nurses, and medicine; and, for that matter, engineers, architects, town planners, etc. Professional courses and qualifications per se will remain the responsibility of universities (and cooperating professions), but the transfer courses once agreed upon can be confidently embarked on in the knowledge that there is assurance of both demand and supply.

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[1] The survey returns from the hospitals are replete with suggestions on all the auxiliary medical personnel, including nurses' aides, practical nurses, orderlies, etc., as well as physiotherapists, occupational therapists, etc. They are not reproduced here, on the assumption that this important area should be reviewed by a special committee in view of existing training programs at both BCIT and the Vocational Schools. Nurses' training, however, should certainly be the subject of cooperation between the college and the teaching hospitals on the Island.

Banks and stores (now that chains, department stores, and supermarkets have so radically changed the structure of retail trade) have some features in common so far as the labour market is concerned: they draw on a large proportion of the high school population, and for the most part conduct their own training programs. There are of course many other kinds of offices besides banks, and there are a great diversity of trade operations besides stores. What the survey reflects, even though in this sizeable area it is only a partial sample, is that mechanization and "middle management" skills are steadily assuming more importance. Financial institutions are looking for machine operators and computer programmers, clerical and accounting supervisors, high-grade secretaries; stores are looking for maintenance men for self-servicing equipment and specialist salestaffs of all kinds. Modern consumer goods have created needs in retail and wholesale trade for TV, air-conditioning and refrigeration specialists, test mechanics, automatic-machinery servicing, house furnishing consultants, and consumer-credit accountants. The kinds of courses that would be welcome from a college include economics, finance, and law, various kinds of business mathematics and accounting, computer programming, insurance and real estate practice, interior decorating, land-survey, construction estimating, and town planning assistants, restaurant and tourist-trade management; and, as in many other fields, programs for supervisors, administration, personnel work, and industrial relations.

Sorting Out the Courses

While there is no doubt about the work to be done, nor of the possibilities of the Regional College as a coordinator, it is also evident that there is a great deal of confusion, notably on the acquisition of skills and the education of a technician, but also as between special-purpose short courses and long-term study programs. The picture of needed curriculum is blurred. Is "upgrading" at issue and is this educational upgrading, or an increased manipulative skill, or knowledge of new processes or machinery - or some of all of them? Is the basic need one of retraining for someone whose job has disappeared or radically changed: is it a refresher course for someone fully employed who needs to revise or add to his knowledge? And what are the components in each case - lectures, discussion between equals, tuition from experts, clinical examination, book study, or lab. work? At every point, one comes back to the educational components: what is the level at which one may start giving instruction, or what is essential to permit the technical "take off". Or is "technique" nothing more than refined education? These things will determine the way in which the instruction should be offered, and also the time which will need to be taken to "complete" a course. From such considerations alone can be decided (1) if this is a course of instruction best undertaken in a Vocational (or skilled-trades) School; (2) whether apprenticeship provisions are appropriate, and therefore that trade unions and industries should participate in the programming; (3) whether high-school curriculum subjects are required or not (which may decide whether they belong to the college or should best be carried out under the School Boards' adult education program); (4) whether the requirements can best be met through "extension-type" courses (night classes, special institutes, etc.); (5) the extent to which College-industry co-operation (in-service training, work-study programs, etc.) is essential in the plan.

Each occupational area will need its own review and analysis; some vocational instructors will have a more difficult task than others in this respect. The fact is that there is no inherent distinction between "technologist" and "technician", and even between training and technical training at many points. The Californian experience is so illuminating on this point, that the course listings have been set out in detail in Appendix G (especially 4 and 5).* The distinction between tradesman (or skilled craftsman, skilled mechanic, etc.), technician and technologist may be established, and is in fact so established, by (1) the institutions offering the training. (2) job-specification set up or recognized by employers, (3) professional and semi-professional bodies which accredit the right to practice (as well as governmental licences, and apprenticeship regulations established by trades unions and industry), (4) the educational attainments which are required in order to qualify. If some or all of these are embodied in a certificate, of whatever kind, the distinction becomes concrete.

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*See also Appendices G(5), G(6) on Canadian training institutions; and some sample "technologist" and "technician" specifications in Appendices G(7), G(8).

British Columbia already has Vocational Schools (for adults), and vocational courses in the high schools which are preparatory in nature. It has also the B.C. Institute of Technology, with ten or more programs directed specifically to the training of technologists in fields which are closely comparable to the first two University years of engineering (in various branches); and some others which are better described as technical or occupational programs, as they would be in American colleges. The list, and their present enrolments, can be seen in Table 8. [Two further courses, for medical laboratory technologists, and X-Ray technologists, which are virtually self-contained programs supervised by the medical profession, are not included here.]

Is there an intermediate area of career training for the Regional College to cultivate? Or is some overlapping unavoidable? The answer, it is suggested, is Yes on both counts. But the "overlapping" is only in occupational descriptions: there need be no conflict or waste of effort in deploying our instructional resources, if the requisite consultation and planning is done. The preliminary guidelines for this are set out, for core programs, in what follows, and for auxiliary courses in Section 6.

Technologists and Technicians.

There is a great deal to be learned from the experience of the B.C. Institute of Technology even though it is still only in its second year of operation, i.e., its first crop of graduates (excluding the special programs of medical technologists) now in their second and concluding year is still to be "harvested", but its second set of applications has been received. The statistics available at the time of writing were not complete, and the applications for the available 575 places were nearer 1,000; but their distribution over the seventeen programs at present offered is extremely helpful to know.

To start with, it must be remembered that the training quotas for each program (with the exception of the familiar, and more general, program of Business Management) are relatively small. The typical class is 30 in number, a few as small as 12 or 15. This is as it should be: technical instruction is expensive, it usually requires costly, modern equipment, it must be intensively done if it is to be effective, and the course with such small numbers guarantees a measure of individual attention and a high rate of success for the student who brings motivation and ability to his studies. This is more intensive training even than universities can offer in cognate fields; and is a clear indication that the Institute aims at a first-class standard.

But such small numbers imply, and actually permit, high selectivity: only the best students will be chosen, and all the evidence is that very high qualifications have characterized most of them so far (particularly in mathematics and science subjects). Of a total of 620 applications processed for entry in the 1965-6 session, up to the end of July, no less than 304, or nearly one-half, had gone beyond Grade XII. Many of them had been taking Grade XIII, others had had one year at U.B.C. or had attempted it. The fact that some had entered regular university but had found reason to change their minds, is a further indication that vocational guidance, wherever it ought to be given, is lacking or inadequate. The view still dies hard that the university is "the proper place to go to": the fact that a decision to seek technological training comes only after trying a university course means that the technologist's career is not yet fully understood as competent, satisfying, and remunerative in its own right. On the other hand, an equally large proportion of the applicants (3.6 out of 620) had had some work experience, 167 of them (27 per cent of the total) having been already employed for more than two years. The realization of this group, presumably, is that more training and education is needed for career success; although it is fair to assume that some of them simply took jobs after high school in order to earn some "education money". The great majority, incidentally, are young; only a very few are in the upper age-groups. And male applicants outnumber women by more than ten to one (the balance being somewhat redressed at BCIT as a whole by the medical technology courses, which are suited to, and attract, women students very readily).

Table 8. Training Programs of the B.C. Institute of Technology; and Applications in Relation to Capacity

(As at August 1965)

Program Area	Applications	Capacity	P.C.
Building technology	37	30	123
Civil & structural technology	56	30	187
Mechanical technology	54	45	120
Surveying	34	30	113
Chemical and metallurgical	55	30	183
Oil and gas technology	7	30	23
Mining technology	17	30	57
Forestry technology	86	30	287
Electrical	22	15	147
Electronics	125	45	278
Instrumentation	42	30	140
Broadcasting (technical)	22	12	183
Broadcasting (production)	76	18	422
Business management	125	120	104
Hotel and restaurant operation	34	30	113
Food processing	35	20	175
Forest products utilization	35	30	117
Total	862	575	150

Source: Data supplied by B.C. Institute of Technology, slightly edited, and regrouped to show the training programs in related groups. Applications by the time of entrance were closer to 1,000.

The conclusion is that highly-trained technologists are rare, and are going to remain rare. If the numbers are doubled in the next five years, this is hardly likely to mean they are going to flood the market, especially if this principal "market" in these educational calculations is British Columbia and perhaps some part of the Western province and the north-west. Should it be otherwise? Technologists are greatly needed; they are invaluable in the production and service niches they fill. But, with every allowance for the demand of this New Age, are they ever likely to be needed on the scale which characterized, for example, the demand for electricians or machinists or the great variety of clerical workers in the last half-century? Most persons qualified to judge give a decided No to this question: to some predictors, the technologist of the future promises to be a lonely operative, surrounded by long corridors of equipment but very few people!

Before proceeding, a few cautions are in order in interpreting the fact that applications far outrun the places available (third column, Table 8). It must be remembered, first, that it is common experience for applications to exceed capacity in almost all universities, where the numbers are large and yearly growing larger, but also in most of the professional schools, where the numbers are relatively small. The excess does not by itself indicate the need for expanded capacity, and least of all at the outset of a new training facility, which has to reckon with pent-up needs from the past few years. The other factor is the qualifications for entry of the unsuccessful applicants. If men and women with the requisite ability are denied the opportunity for training which society can use, the argument for expansion is of course unassailable. But we need more information on the educational rating of unsuccessful candidates, and the possible alternative occupations which some of these people might train for, perhaps in the future as the drop-out or attrition rates of technological training classes become much larger.

At least one of the immediate answers is to recognize further subdivisions and specializations in the technical network of the modern labour force. If every professional or executive or administrator requires a select corps of technologists, equally every technologist requires a corps (sometimes a large one) of technicians: and there are several grades and many varieties of technicians. The Society of Architectural and Engineering Technologists (SAET) in British Columbia has attempted to wrestle with this difficult area of vocational definition, at least in the fields of physical and mechanical production with which engineering is most intimately associated. They suggest three levels of Technician might be specified, the fourth level being reserved for Technologist as such; and for Technicians I-III they have set out the subjects or courses they recommend as qualifying in eight of the fields (or programs) already established at the B.C. Institute of Technology. [At BCIT itself, this effort has been so well accepted as to be embodied in some Night Courses already started in the new session (1965-6).] These are so valuable in giving concreteness to an otherwise elusive subject that they are reproduced in one of the appendices to this Report (C(9)). What is important here is to note, first, that the recommended qualifications start with high-school graduation (Grade XII) in any of the B.C. secondary school options now in operation. The second implication is that these programs for Technicians are completely suitable and appropriate for Regional College development.

It may well be that Regional College courses in the first year will permit some students to transfer to BCIT in the second year. This is all the more feasible if the relatively small numbers and high selectivity of BCIT training are kept clearly in view. This will be a matter for curriculum planners to keep in mind. Nor should some decentralization of complete technological courses be out of court. This too is a matter for cooperative discussion and planning between the two institutions, and particularly for their Advisory Committees, who would be actuated by provincial (or national) as well as local perspectives. But the most inviting area for complementary educational provision, which no other public educational body could provide as effectively, would be the development of an appropriate range of technician training. All the more so in the light of what has already been adduced in Part I of this Report on the needs of students who will channel through the "non-academic" options.

Expanding the Technician Concept for Modern Society.

The greatest reinforcement of this guide-line for curriculum development comes from another direction. The concept of a technically-trained (and appropriately educated) person needs to be extended beyond the physical production or "sub-engineering" area which has made it most familiar. In the twentieth century, there are just as great needs in the service areas, if not greater: there are in all probability an expanding number of public careers of many kinds as well as those in the private business or manufacturing fields. Highly important examples are recreation and leisure-time activities, including all the arts and crafts. These shade into various types of community leadership programs on the one hand, with all the auxiliaries of the arts, in drama, music, ballet, the use of visual aids, museums, libraries, art galleries, etc., on the other. Arts and leisure programs are "naturals" for local community development, whether or not there are already some resources (in this area, a poverty of local resources might well justify special efforts on the part of the college faculties to help generate them). If there are already local festivals, committees, theatre groups or orchestras, etc., they are welcome allies. Obviously, there may also be room for complementing or even redirecting the adult education facilities of the region in appropriate fields. (See also Section 6).

Another example, which is so little recognized as to be almost neglected, is the area of research assistance, particularly the areas of study, statistics, surveys, and planning that utilize the social sciences. As everybody knows, these sciences (not only economics and psychology, the most familiar, but even anthropology) have been drawn into the service of businesses, notably the giant corporations. But modern government (which is only very slowly and almost reluctantly utilizing the professional town planner), education, welfare services, health services, provincial and federal administrators, voluntary agencies, and the various quasi-government bodies that have continually to be set up to provide everything from judicial or regulatory services to television broadcasting - all these need assessments and appraisals, consultation about public needs, evaluation of their operations, plans for growth and expansion.

Not only is this clearly "the wave of the future" in the needs of modern society - so great in size, and so full of difficulties in nurturing democratic communication: it has other features which give it special virtue. (a) Appropriate training in these areas does not call for the expensive equipment, laboratories, power and machinery which the "physical" technologies must have. It requires libraries, modern techniques of visual aid, perhaps better provisions for travel and observation than some courses have yet accepted, and these will cost money: but they are relatively much less expensive, and will in any case be available in part for all students. (b) They provide for the social sciences, and the humanities (for literature, history, philosophy, and the arts also have potential roles in public service), the range of intermediate careers other than the purely professional or academic which the more familiar technologies, and engineering, have provided for students of natural sciences. It will take imaginative teachers to develop these courses, and those with appropriate experience may be as rare as the electronics specialist was a few years ago, but they may anticipate enthusiastic encouragement both from administrators and from university social scientists who know the great need for the second and third links in the chain of research and social study. As in many other fields, we have to learn that these jobs cannot and should not be filled solely by university graduates, just as we have still not fully learned that every level in a business from office manager to salesman to draughtsman should not be filled by a university graduate engineer. (c) Like the auxiliaries to the technologist, they will be needed in sizeable numbers. They constitute personal service in an age threatened by the machine. The need for data gathering, opinions, assessment, for interpretation and explanation, will not be eliminated by the computer. (d) The clinching argument for this development should surely be that it can provide satisfying, respected and predictable careers for many young students today who like social science subjects but are not sure what "they lead to"; or have doubts about an Arts course because it is so vocationally vague. The heavy drop-out in the University Arts Course, as well as the heavy entry, should be constant reminders that "practical" alternatives or redirections are needed for those who cannot or should not contemplate a four-year university span.

The decisive factors for a technician's training are that it should be a program, built on an educational base, preparing for a group of skills and competences which have intellectual as well as manual (or personal service) components, assuming always adaptability as an objective, and therefore covering a period of time. Two years is convenient, and appropriate, but not necessarily immutable. A diploma is a proper objective, but a certificate half-way along the program is reasonable, and meaningful if the program is well-planned.[1] The programs which have been worked out at the new Vancouver City College, in their first year of operation, are admirable examples of this kind of curriculum building. Four examples are reproduced in Appendix G(2), to indicate the main features. In assessing these it must be remembered that the Vancouver City College incorporates the resources of the already existing Vancouver School of Art. Nevertheless, the flexibility which can permit "transfer" in the intra mural sense (a) from day to evening, and (b) from study to interim employment is particularly to be commended.

The new and widening significance of the term "technician" must also be noted. Not only are five or ten or twenty technicians going to be required for every technologist, or professional (the ratios vary with every kind of attempted look into the future). We do not depend on the physical sciences alone. It could be that one of the several divisions of labour between the Institute of Technology and the Regional College, as yet only dimly perceived, is between the training in the applied skills of the physical sciences, and training in the applied skills which derive from the social sciences. In part, of course, the skills of social research investigation and planning are already developed in universities; in part, they are certainly utilized in industry (notably in personnel work, advertising, and "public relations"). But altogether insufficient attention has been paid to (a) needed developments in the modern fabric of government and social administration, and (b) the intermediate occupations which range between the clerical worker and the professional (whether consultant, expert, or "career civil servant" administrator). There is an untapped area here for enterprising Colleges to develop.

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[1] An unorthodox suggestion for Advisory Committees is that they should help to educate employers not to offer jobs to students at the end of the first year of their Technical Diplomas. The most eloquent implementation of this would be a scholarship fund set up by industries to permit promising students to complete their second year. Some of such scholarships might be tenable on a part-work part-study basis.

6. COMMUNITY SERVICE

"Community services" are unfailingly listed in all accounts of the junior college, as one of its distinguishing and most valuable characteristics. The sad fact is that, in college by college examined individually, the community courses, other than those for the part-time and evening students who are pursuing the regular curricula, may be the least conspicuous, and sometimes almost non-existent. "Continuing education" certainly goes on, and perhaps more than in a university institution, in the sense of people who are pursuing vocational and occupational upgrading. But what of the "non-credit courses", the various sections of the general public who are interested in some aid or stimulus to their personal interests (which they themselves may not even call "education"), the service courses which help people in their leisure time, or their civic participation, or their family life - which in short, enhance the human resources of the community over and above the contemporary challenges of work and employment?

The recurring problem of Adult Education is that it is so diffuse. Possible and desirable programs vary so much - in the almost infinite range of subject-matter; the kinds of persons, men and women, old, middle-aged, young, and adolescent, who are interested; the time-spans over which they can be planned for them, or which might have to be arranged for them since there is no other way in which to fit them in to hours of work, domestic responsibilities, or distances and travelling time. In spite of these variables, perhaps because of them in some ways, adult education is flourishing today as never before. The statistics of attendance continue to rise in steeply-graded upward curves. But it is imperative to be aware of the differences in components. There are worlds of differences between courses to improve your bridge-playing, to understand your car, how to improve your cooking or your physical fitness, how to have a better understanding of today's adolescent, language courses which will help you to travel, Grade XI English, chemistry, or mathematics, study of the Great Books, the religions of the world, the United Nations and technical assistance programs today, contemporary social and economic issues in Canada, a study-group on the Fowler Commission on Canadian broadcasting, symposiums on racial discrimination, automation and trade union policy, or peace, atomic weapons, and disarmament.

Obviously, some of this may be suitable for a Regional College, and some of it may not. Some of it may very reasonably be expected from the college since it has been created by a group of communities which have lacked such a facility before. But other agencies are also engaged in "continuing education" activities - outstandingly the night schools of the Adult Education departments of several of the School Boards, such special institutions as the Regional Library, and a host of private and voluntary organizations, clubs and associations, including churches, film societies, women's institutes, trade union locals, Rotary Clubs, etc., etc. The needed policy for a Regional College is a combination of coordination and facilitation: coordination, where this can improve presentation, efficiency, and quality, but still preserving a reasonable "division of labour" between the college and other agencies who are already performing an adequate service; facilitation, where the College can help (by lectures, films, reference books, study-kits, or simply meeting-places), but leaving the way for College personnel to develop and expand educational and cultural undertakings where new directions are needed.

It is useful to set out, even in a distinctly provisional way, the areas in which adult education or community service courses may be developed. This will serve a three-fold purpose. First, as a reminder of the need for balance. There are competing claims on a Regional College, just as there are on all Extension Departments in Universities: some of them are backed by finances, some are not. Those which cannot "support themselves" may not get very far unless the college has an adequate Community Services budget which will permit some underwriting of pioneer or "demonstration" programs, and this is particularly true in the arts, and in public affairs. Secondly, as a reminder that the regular courses and permanent staff are the basis from which the "extension" work must be built up. Again, there are limits as well as potentials which must be kept in view here.

a. Vocational programs - serving the economy of the region, by aiding workers, trainees, industry, management, government, in ways which are auxiliary to the regular diploma and technician courses of the College.

b. General education - the students of all kinds, already referred to elsewhere, who are interested in study, but not necessarily for credit or diplomas.

c. The arts. This is intended to include the crafts, and many recreational and cultural activities directly or indirectly involving the arts and crafts.

d. Public affairs - a range of activities from meetings, films, etc. to visiting lectures to special courses, quite likely shading into all the preceding areas at the margins, but with public or community education (including the sharing of experience and opinions) as its particular objective.

Several other categories are of course possible. Entertainment and recreation is one. There may be concerts, plays, exhibits, stemming from the arts, from community as well as student and faculty sources. Physical fitness and sports are another. This is enough, however, to suggest the programming implications.

The paramount policy suggestion is that a full-time director of a Community Services Division should be appointed at an early date; and that, particularly in the first year of operation, a large part of his time should be kept free to permit him to travel and meet with all the appropriate people and agencies in all the communities of the region: to assess resources as well as needs, present social, economic, and cultural characteristics as well as future potentials. A few special surveys and enquiries may well be in order. It is not enough "to offer experimental programs and wait and see who comes": reasonable balance and direction is required, not routine plus trial-and-error. Contacts with the community must be made, moreover, not only to bring needs to light, but to seek leadership, and to aid and encourage it. A two-way communication is the goal - persons and groups making suggestions to the Division, Adult Education personnel making suggestions to the community - and nobody can predict the possible rewards. This will require, of course, cooperation (including exchange of information) between the Community Services Division and the regular teaching divisions of the college. The critical distinction, for adult education, is not between day and evening sessions but between full-time and part-time courses. The Director of Community Services should be in charge of these, or have an associate with this special function.[1] In planning curriculum, it should be remembered that a course which may be too small for day classes alone may become completely feasible if given in the evening and opened to adults.

To protect and liberate the service functions of the Community Services Division, it may be desirable not to utilize this Division as the public information agent of the college, though this practice is sometimes followed. Public information about the whole college should emanate from the President's office, and it would be far more effective to have an Executive Assistant in this office, who would be responsible for all bulletins of this nature. They should of course go to all teaching members of the college and all administrative staff; and the director of the Community Services Division would himself supply to this Information Officer a large proportion of relevant information. But it is essential, if Community Service is to become what it ought to be, that its work should be universally understood as an integral part of the college as a whole, not as a separate (still less a subordinate) appendage to it.

Some Special Areas: (1) The Arts, and Public Affairs.

The college's contribution to the economy of the region may be more enthusiastically recognized than its promise as a cultural asset. Unhappily, though understandably, education is equated with jobs. Can it also be extended to the quality of life? A few words on this aspect of "community" will perhaps not be amiss.

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[1] It is important to determine in what ways the College Library (which is not confined to books, but will include visual aids, films and film strips, exhibits, recordings, etc.) will be available for the general public. Possibly a special "extension" section should be planned, which should be coordinated with the Regional Library service on the Island, and the School Boards.

The Arts. In the most profound sense of "the quality of life", nothing is more important than the arts - writing in all its forms, painting, drawing, sculpture, architecture and city design, the theatre, the many worlds of music, and all the allied crafts. Yet no ingredient in instruction or in community service development is more likely to be neglected if there is no deliberate organization - if the community-service offerings and undertakings are left to arise "if anyone wants them". The arts do not "pay" (unless they are commercialized, when they are likely to cease to be arts). They require talented and enthusiastic volunteers, who will not get very far if they remain isolated individuals. They are easily apt to be regarded as incidental or secondary: as "frills" compared with practical matters like occupational preparation, as recreational pursuits rather than serious study. Yet their contributions may be essential ingredients in education, important not only in immediate satisfactions, but in creativity and renewal, the enrichment of personality, the opening up of social and emotional as well as intellectual horizons. Nor are all of these purely individual; sooner or later, they become apparent in the community. There is widespread agreement on vocational and educational upgrading these days: how many yet recognize the dire needs for cultural upgrading in the community? The mass-media and spectator sports, invaded so overwhelmingly by commercialism, have a poor record in this direction, with only a few exceptions. Adult education ventures, even if they are selective, and influence only small groups (which may in fact be their best objective), are the most effective answers.

If the community has no Little Theatre, no concert hall or playhouse, little or no visual aid resources (permanent book library, music library, films, art shows, historical or cultural museums, etc.), and only a few isolated artists, the college cannot be expected to work any miracles. It will be hard put to develop its core programs of teaching. But it may provide (a) a meeting-place for the arts, for exhibits, plays, concerts, (b) some personnel to develop lectures and discussion groups, (c) a clearing-house or coordination centre for linking together interested persons, clubs, and associations in the community. Within reasonable time it should be possible to develop a "circuit" for travelling lecturers, exhibits, musicians, etc., starting from the main and branch campuses, covering the constituent communities through the cooperation of the School Boards, and utilizing travelling personnel from Victoria, Vancouver, and elsewhere.

Much the same applies to public affairs, except that (a) college personnel are more likely to be able to give direct help, and (b) it is much easier to organize lecture series and study groups (compared with concerts, plays, art shows, etc.). This is not to say that community resources are not needed - sponsoring groups are essential and a great deal of liaison work is involved. Many a community has discovered that it has retired persons with scholarly interests, seasoned travellers now "settled down", former teachers, persons with hobbies which are fascinating whether they expatiate on them to others as amateurs or connoisseurs, if it only has a place to bring them to. Nor is it to be assumed (as, unfortunately, it often is) that the sole requisite is a lecturer. Films, film strips, slides, projectors, maps, mimeographed reference material, library books, study-kits, panel and discussion-group organization, are among the "equipment" needed to make this kind of adult education attractive as well as effective. A reminder seems often to be needed that all this is part of the stuff of democracy - it is not enough to read the newspaper, look at television, and perhaps occasionally vote. Fortunately, adult education today is a thriving business: but, as already indicated, it needs balance, encouragement, and up-to-date methods. The college cannot single-handedly supply all this. But by providing a focus where none existed before, it may become the most efficacious of all catalysts.

Some Special Areas: (2) Sorting Out the Vocational Auxiliaries.

No further emphasis is needed that broadly-based technician programs are key constitutents in the core curriculum of the College. This is now the place to consider the other types of courses which may be developed in "extension" fashion.

A prolific fund of suggestions came from the employers and managers contacted through the Vocational Needs Survey. At first sight, these seem overwhelming - particularly in their diversity. A little examination shows that the following are the most common characteristics:

1. Trade skill improvements, of various kinds.
2. Educational upgrading, of various kinds.
3. Courses for foremen, supervisors, and managers, including selection and preparation for promotion or more responsible duties.
4. Courses to acquaint personnel with new techniques, new methods, new products, or new aspects of management (including data-processing).
5. Refresher courses somewhat comparable to the preceding but with special reference to the professions and sub-professions (e.g. nurses, librarians, medical lab. technicians).
6. Developmental courses (usually with workshops, "clinics", etc.) for selected personnel, concerned to give intensive study, possibly with examination of research, to current operations. These may be managerial (administrative) or technical.

It is hoped that what has been set out in Section 5, aided by the illustrative material in the Appendices, has helped to clarify the otherwise confusing picture of technical education. It is also assumed that, in assessing the employment areas in which they are particularly interested, counsellors, instructors, and Advisory Committees, will keep two considerations in mind. The first is that the College must contribute to a sensible division of labour between the agencies already available - which include not only the Vocational Schools, and night classes of several School Boards, but the in-service training potentials of industrial plants themselves. The second is the critical curriculum issue, of whether a short course is really effective, or whether something much more extensive and intensive is called for. There is a widely prevalent faith in "short courses", which instructors familiar with the handicaps of learning under which some students labour (especially adults) are not likely to share. If short courses are indeed appropriate, they belong to the Community Service arm of the College's work. If they demand more, in order to build in for the student not only a firm groundwork for new skills, but the base for adaptability, a program, developed within the regular curriculum, will be a much better expenditure of time and money.

With these principles accepted, it should not be difficult to build up a plan of courses covering the four last-mentioned types of vocational and industrial service on the list above - (a) courses and projects to aid promotion and staff development to senior levels, (b) courses for training in new processes and techniques, (c) refresher courses, which would be short or long, concentrated or spread out over time, according to the occupations concerned, and (d) intensive developmental and in-service projects. All of these would call for joint planning with industrial or professional representatives; they might well use instructors from the plants, government departments, hospitals, etc., concerned; they might in appropriate circumstances lead to a certificate, but for the most part would be distinct from the regular courses of the college curriculum.

An important point needs to be made about "educational upgrading" in general - another frequently referred to but ill-defined idea. It is sometimes intended in a broad, even a cultural sense, sometimes in a much more limited technical sense, but sometimes only to refer to "making up" high school grades. Grade XII or "matric" is still regarded as a criterion for entry to certain occupations (such as nursing, or clerical positions in a bank). Is it a valid criterion? If the academic program is intended primarily for the continuation of studies in a university, it is hardly reasonable to demand it for something else, especially when in-service training in the occupation concerned is the next step, that might quite readily be within the capacity of the young man or woman with, say, Grade X attainment. The new options in B.C. secondary schools go a long way towards giving a new perspective to this area, but there is still need for an information program for employers and the public generally. If, for example, banks still require - or what is the same thing, in effect, choose only from the competing candidates - the Grade XII academic, or even "senior matric" students, the commercial options, available for students who are specifically moving towards commercial careers, are frustrated. It is true, of course, that young people themselves will seek higher-grade attainment simply to improve their competitive position. They are in need of counselling, too. But unless there are changes in the labour market, and the facilities for continued education, they too are frustrated. The Regional College may be able to contribute some solutions. What is needed is an appropriate program (more correctly, a set of them), worked out with each group of employers, which will decide on the most reasonable high school requirements, and the next steps which can be built into a two-year program offered at the College. There is no reason why this should not include in-service training facilities already existent in part: indeed, it is to be hoped that they might be expanded. By instituting a certificate at the end of the first year, and a diploma for the completion of the full program, dovetailed periods of study and employment, and of course extended plans with night classes, would all be possible. The two most strategic areas which invite exploration for this are bank employment (and related finance institutions, not excluding possibly some governmental agencies), and nursing. For the latter, the nursing professional agencies as well as the hospitals would of course be the proper consultants.

These examples show again that educational and vocational improvement must be developed together. At a lower level, for example, for candidates in a Vocational School who do not have the equivalent of say, Grade VIII, cooperative arrangements have been worked out with the Adult Education departments of School Boards. In all probability, this kind of instruction will remain outside the college sphere, at least for some time in the future. At a higher level, where the need is for broader educational experience for senior members of a firm's staff or a government department, the special course tailored for this group may be the entirely appropriate medium. Even here, however, there is a case for broadening the perspectives once Regional College facilities are available. Is an ad hoc undertaking, confined to the needs of, say, real estate personnel or construction-products salesmen or chemical products superintendents, all that is involved? (a) Could not a balanced certificate program be put together, that would require some library study, discussion, presentations, etc., as well as lectures (often too brief or concentrated) on "up to date methods" or "modern principles"? (b) Could not advantage be taken of existing courses at the college - in general education as well as the technical offerings, to round out such a program? "Refresher courses", in this kind of a context, take on an altogether more convincing character, with almost certainly more durable results.

Professor Coolie Verner, a leading authority on adult education, has characterized the community aspects of the whole curriculum area in terms which it is worthwhile to reproduce here. His four categories refer to all the programs which have been reviewed in the preceding three Sections, and in stressing the necessity of catering for adults he has also underlined the "community development" challenges of the Regional College. [From "For the Junior College", Interim (Canadian Association for Adult Education, Toronto), April-May 1963. Quoted with permission of the author. (Underlining added by present writer).]

"1. Systematic Academic Study. Many adults are unable to fulfill their maximum role in society because they had no opportunity at the appropriate time to pursue the rigorous systematic academic study needed to capitalize on their inherent abilities. This can be amended through participation in formal college credit courses falling within the scope of the two-year institution. Such academic study designed for adults will need to be constructed with them in mind. Courses must be offered at suitable times; have a selection of content that will take into account the varied experiences of adults; and utilize instructional processes adjusted to the mature temperament of the adult participant. Traditional college under-graduate courses will not meet adult needs adequately insofar as the form and content are concerned; however, the objectives and goals are the same. Furthermore, through cooperation with University Extension, the two-year institution can extend its range of courses offered adults into advanced levels of pre-baccalaureate and post-baccalaureate study.

In meeting the need for systematic academic study, the traditional conventions governing academic credit must be modified. This need in no way affects academic standards or quality, as these attributes rest in the nature of the learning experience provided rather than in any specifications of form or content. The newness of the two-year college idea offers certain freedom from tradition which provides an environment conducive to the development of creatively-structured academic opportunities for adults. The institution, therefore, should be characterized by an attitude of permissiveness and willingness to explore new ways of providing academic study rather than slavish adherence to obsolete traditional forms inherited from older academic institutions.

2. Advanced Occupational Study. Modern society requires individuals to acquire new knowledge and skill related to occupational competence on a continuing basis. This cannot always be satisfied through courses on subjects or skills but requires the integration of theoretical and applied instructional activities. To achieve this, the institution will need to work with business, industry, and occupational groups in the community to plan and conduct the variety of educational activities that will be required, both within and without the institutional framework.

3. Developmental Learning. The changing responsibilities encountered by adults create tasks for which specific learning is required in order to perform them competently. Such learning must occur at the appropriate moment, and involves far more than any single institution can provide. The two-year college can develop the needed instructional situations through cooperative action involving health and welfare agencies, churches, libraries, and other community resources. The variety of learning that is needed may well result in educational activities almost unrecognizable as such by traditional standards.

4. Personal Enrichment. As community-centered institutions, the two-year college can become the centre for the discussion of vital issues; for the development of appreciation in the arts through exhibits, lectures, concerts, and theatrical performances; and for the total involvement of the human personality in the art of living."

7. EDUCATIONAL POLICY: STUDENT SERVICES

"Administration" is a favoured and frequent word in educational circles: it has been deliberately excluded from the title of this section, as a reminder that what is at stake is educational policy and educational services. The way in which the college is financed, organized, and "run" is critical to its success; but this is means, not end. "Policies" are not self-sufficient: they must be related to objectives. A number of suggestions gleaned from past experience, and of implications which derive from the extensive consideration of curriculum in the preceding Sections, can be brought together in this context.

Curriculum, and Administrative Structure.

The administrative structure which evolves from a long period of growth and adaptations is likely to have many faults. Junior colleges in the United States are of bewildering variety: they have grown from technical schools, denominational academies, preparatory schools, vocational high schools, night schools, extension departments, private schools and colleges. Some of the evolution has been laborious and clumsy: an integrated curriculum and a smooth-working flexibility between academic and technical studies, a flourishing set of student and faculty services, are not the norm, though happily there are many excellent progressive examples.

The most outstanding difficulties arise from two separations: the separation, or at best an uneasy working relationship, between Academic and Technical Divisions; and separation of an Evening Division from the day classes. Both of these may be affected by the further fact that while all are growing, they are growing at different rates. At worst, the Evening Division may become an "empire" because of the enormous enrolment, yet its adult-education and community-service features, other than vocational, may be minimal or non-existent. Lastly, the "general student" may be ill-served because of the domination of university-equivalent courses which, adequate though they are in themselves, are nevertheless stereotyped and geared to further university work rather than to the provision of a broad base for all students.

The considerations which have been explored in this report suggest a fourfold curriculum:

1. The Academic Diploma Program:
2. The College Diploma Program:
3. The Technical Diploma Program:
4. The Developmental Program.

Whether these should be parts of one Curriculum Division, or each one a Division with its own departments, is a matter for judgement. What is important is there should be a standing Joint Curriculum Committee, composed of representatives from all four programs, to maintain and develop inter-relations between them. Further, it is highly desirable that differences between day and evening students should be minimized. A regular or basic course should automatically be scheduled for at least two hours (one "day", one "evening"): but it might well be that a nomenclature of "morning", "afternoon", "evening", and "weekend" might be more appropriate for course descriptions. Student services, so far as possible, should certainly be available to all students without distinction (though a few special regulations might apply to part-time students). Two Divisions, a Student Services Division, and the Community Services Division, would be the best means of signalizing the place of these activities in the College organization, and of permitting their efficient coordination. Each of the four programs, and each of these two Services divisions, should have a Director (or "Dean", if this term is favoured). The six directors would need to be in frequent consultation, and together with the Registrar [It may be a surprise to many that in some Colleges the Registrar comes under the Student Services division, as, in effect, the Assistant Dean of Student Services, on the principle that the registrar functions are not authoritative, but service to students.] and the Librarian, would form the key members of the Principal's (or President's) "cabinet". The College would be wise to consider a rotating Chairman of the Curriculum Committee, drawn from faculty members, rather than to assume that this is yet another job for the Dean of Instruction, who will be rapidly overworked.

There is hope, with such an arrangement, that the troublesome distinctions between "transfer" and "terminal" students (perhaps even between courses) would be greatly reduced, if they cannot be completely extinguished. "Terminal" is an antipathetic term to those who believe in the need for continuous learning, and no institution should be more devoted to this objective than the Regional College: and "transfer" should be at least as applicable to its curriculum structure in the sense of intra-mural transfer, as to movement from College to university. Since so many students who elect for university-transfer courses actually do not complete them, and leave to find jobs instead, the term is not very helpful. If the fact of the many unrealistic expectations of students is squarely faced, it would be a distinct gain if they could become accustomed instead to seeking Academic, College or Technical Diplomas. The one-year certificate, for successful completion of one-half of the course, would also be salutary, whether from the point of view of stimulating achievement, or of contributing to morale.

Student Services.

The standard student services, besides counselling, are health and recreation; student aid; and liaison and assistance for student activities and organizations. Both resources and philosophy will help to determine whether health and recreation are coordinated. A statement on health will probably be asked of all students; but a doctor's certificate will probably be required only in special cases. A full-time nurse is a standard staff member in most colleges, but it does not follow that routine medical checks should be available for everybody. The current tendency is to leave it to the student to seek health care advice if he needs it; also to make participation in recreation optional (but encouraged) rather than compulsory. It could well be, however, that the nurse is also a part-time instructor, and that a Health Orientation course might be placed in the college curriculum. Needs for specific medical or psychiatric care are invariably met by referral, and this again is facilitated if the college already has technical-instruction liaison with hospitals, etc. Students' financial needs (already considered in Section 3, and referred to again in Section 8) are vital enough to require at least half the time of a specially-competent instructor or counsellor, preferably the latter. Placement and job-finding, which have become basic services in American colleges, are dealt with below as a special auxiliary to counselling.

The greatest service to the student is, of course, educational; and a proper appreciation of student-association activities is to put them in this category. There has been a healthy reaction in some colleges against surrounding the student with services, and a preference instead for leaving him, not only to take his own initiatives, but to "make his own mistakes". Much of this has come with the enormous numbers which have crowded in on American colleges, so that they now have, say, 3,000 instead of an amenable 500. But it is also the recognition that the "college threshold" must invite and support adult behaviour. This means every encouragement to the student body to undertake self-government, to set up clubs and associations, to add to the regular college fare by forums, visiting speakers, cultural activities. If older as well as younger members of the student body, and also part-time members, can be involved together, this is all to the good, even though it may require "give and take". (Part-time students are not noted for their participation in out-of-classroom activities or student government, but they have much to gain if this trend can be reversed).

Social participation may well be a need for many college-goers. But self-reliance includes another invaluable ingredient - the capacity for individual study. There is general recognition now that (a) lectures are practical for large groups (so that visual aids and one or two mass lecture-theatres are now in order); (b) seminars and small group rooms are essential, as well as laboratories (so that there must be a profusion of these); and it is to be hoped that at least some types of (c) tutoring will be retained. But the basic requirement is that the College Library should be, not only a good library, but much more than a library. It must be, and is now being called in many colleges, the Study Centre. Books and stacks are no longer enough. The range of available visual and aural aids will tax the ingenuity of the Librarian, and will require much consultation with experts, and with instructors. Laboratory equipment is well-known as an expensive item; the Study Centre must also be recognized as costly, but central investment for all the students. Textbooks, and all kinds of supplementary reading, are more available than they have ever been - but only if they get into the hands of the student, and if he spends time with them. It must be remembered that provision of free books (i.e., large numbers of required texts, on reserve and loan basis) are the most straightforward subsidy which can be offered to the impecunious student. The necessary complement is study space. The College should spare no effort to provide a maximum number of individual cubicles. Teaching machines, retrieval systems, microfilm may be luxuries: tape-recorders and "language labs," will soon become commonplace. But study-units are a necessity: and if they are not adequate, the efforts of instructors to make their students self-reliant, curious to find out for themselves, confident from having learned or re-learned how to study, will be weakened or defeated.

Guidance: Counselling, and Advising.

There are certain points, however, at which guidance is an essential service. It will be needed particularly (a) at admission, (b) in the course of the first semester for every student, (c) for the student who wishes to consider transfer within the College courses and programs. The ways in which this series of services can be extended will depend on the range and organization of the curriculum, the counselling staff, and the cooperation of all instructors.

Professional counsellors in U.S. colleges are now recommending there should be one full-time qualified counsellor for every 350 students (already mentioned in Part I section 12, of this report). If this is not possible, the college should start with at least one full-time director, who would be in charge of the counselling services, and four or more assistant counsellors (on the assumption that no counsellor who is also an instructor, and partly also an administrative assistant, will be able to give half of his time to the counselling work). This latter arrangement might have advantages. [This refers to qualified counsellors whose work-load permits lecturing; not to instructors who are assigned extra counselling work for which they are not qualified!] There is certainly nothing wrong with a counsellor who also gives one or more courses: it may be an advantage in keeping him close to other instructors and to student needs. As suggested later, however, it is essential that the College should be completely informed of employment and occupational trends. It might prove a valuable division of labour if each assistant counsellor made it his responsibility to become expert on particular areas, such as (1) the paramedical fields, (2) the preprofessional areas in engineering, architecture, construction, etc., (3) the public services fields. Liaison with the appropriate instructors would be essential: and this kind of development would have a double value. It could aid the College reputation in being the knowledgeable centre for the Region on occupational preparation. It would make it clear that counselling was career-oriented in the broadest way, and not restricted to separating the academically-capable from the others.

Student guidance is a complicated matter. It is destined to become more so, for industrial and economic reasons alone; but it is bound to be heavily in demand at the College because of the varied clientele. It is worth while attempting a few explanatory distinctions, therefore, not only as an aid in planning and general understanding, but also because they lead to administrative provisions which experience seems to support. First, there is confusion about the range of educational counselling. It would be helpful if educational counselling was always understood by everybody as including advice on instruction progress and requirements in particular courses, on the one hand, and vocational preparation in all its phases, on the other. It is doubtful if this is the case. Unfortunately, a distinction has been all too frequently accepted between so-called "academic" and "vocational" choices, with both terms loaded with misunderstandings. "Academic" knowledge suggests theoretical learning, or university-level studies, or only certain branches of general education, or courses which only the top students should take, or some element of all of these. "Vocational", likewise, carries the connotation of practical studies, possibly without much book-learning or general knowledge at all, as well as the suggestion that it is somewhat (or even a great deal) inferior to other pursuits. As the sections on curriculum in this Report have tried to show, this distinction, if not altogether false, is certainly badly out-of-date. Both general education and career preparation have expanded so much in the modern world that the need is for judicious choice, combination and interrelation; and it is this which the Regional College can be organized to supply.

If vocational is used in the fullest sense of occupational and career guidance, then it is an acceptable term, and equally clearly, it includes a great many educational components. Can this be distinguished from personal counselling? In a practical sense, it can. Of course any student in need of educational advice may also have personal problems - matters related to his work habits, attitude to studies, finances, family situation, lack of confidence, personality traits affecting his sociability, etc., etc. If these are numerous or deep-seated enough to affect seriously his capacity as a student, then he will need personal help and advice. If the counsellor has had clinical experience, he will be qualified to give this help. But it is questionable whether the College should undertake to provide this degree of personal service: it would be more practicable, and probably better for such an individual, to refer him to other appropriate agencies in the community.[1] In other words, the counselling department of the College will have to define the range of its services; and make it known beforehand that there are necessary limits to the amount of individual counselling the College can offer.

Vocational counselling, nevertheless, should certainly include (a) assessment of a candidate's abilities and aptitudes, aided by all appropriate tests as well as school record, interview, and discussion; (b) acquainting the candidate with all relevant information on occupational specifications and choices, educational requirements, including other training and scholastic alternatives, as well as (eventually) the experience of other students in related situations. This need not be compulsory for everybody. The individual's right to choose, and reach his own decisions, must be respected. It is to be supposed that a considerable proportion of applicants will meet minimum requirements and raise no problems, and such students will not need the counselling service, excepting always for occupational information. As soon as possible, general and minimum requirements for both specific occupations and the College programs will be compiled in leaflets or brochures: these will be sufficient for many people, or they may need only a small amount of help. It is the marginal and doubtful students who will have to be referred to the counselling Service. Decision as to admittance must of course rest finally with the Registrar. Unquestionably, a few will have to be advised that they are too far from minimum qualifications to be potential candidates. For others, the Developmental Program recommended in Section 4 will make the task of both the counsellors and the Registrar's office easier. Clearly, students enrolled in the Developmental Program will be known to counsellors from the beginning: it is all to the good if the latter are giving some of the instructional clinics.

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[1] Excellent recognition of this, and a summary of all the facets of vocational counselling as they apply to private agencies and the National Employment Service, as well as to high schools and Colleges, is contained in Counselling and Guidance for Educational and Vocational Development, a bulletin prepared by Dr. G.P. Cosgrave in collaboration with an advisory committee from many fields. Drawn up with a specifically Canadian frame of reference, it can be recommended to everyone concerned with Regional Colleges at the present time. (Dept. of Labour, Technical and Vocational Training Branch, Ottawa: May 1965).

What part does the regular instructor take in the guidance work which must go on? There are several examples among American colleges where the principle "every instructor a counsellor" is believed to hold good. This requires clarification. In the sense set out above, it is certainly not feasible. Counselling requires expert competence: the competence demanded of an instructor is knowledge of his subjects, and ability to teach. It is quite unreasonable to expect every teacher to have diagnostic techniques, or even to administer tests. The contribution of every instructor is his knowledge of the requirements of his particular course or courses. It is in this sense that every instructor can counsel, but it would be better to describe this as educational counsel, and clearest of all as course advising. The instructor who gives the course is the best equipped to indicate whether a student is gaining from it, whether he is learning, whether he can make the grade, whether he is suited to or able to profit from the kind of subject-matter, skill development, and learning experience the course involves. He may not be able to predict this at the beginning (and nor may anyone else); but - assuming always that he has sufficient contact with the individual student, and also that he has time for grading essays, laboratory work, seminars, etc. - he will be the best able to make a judgment of probable attainment.

There is a second function which each instructor can perform, but it may be necessary to take advantage of this on a collaborative or team basis: this is knowledge of professional, technical or scholastic requirements in the career areas relevant to his courses. Advice in this area clearly can be shared: some of it may be offered as supplementary to that of the counselling service, some students may have to be referred by the counsellor to particular instructors, and so forth.

There is a third function which should be given careful consideration. Ideally, every student in a two-year college should have a faculty adviser. He should be assigned to one member of the instructional staff, to whom he would report after admittance (not before), and whom he would see once or twice a term. This instructor would be given a record of all the student's work, as well as a brief summary of the student's background and record at entrance: and this instructor would be the first channel through whom College communication about his scholastic status would be passed, and through whom the student in his turn might seek counselling or other personnel services (such as financial aid). The faculty adviser is not necessarily a tutor, (i.e. he will not give instructional sessions for single students on a regular basis), and it is not at all clear how far College staff and enrolment ratios will permit this as a general procedure. The terms, therefore, should not be confused. The administrative issue is whether the faculty will be large enough in relation to the total student body to permit faculty advisers as a regular feature, highly desirable as it is to give some assurance of personal contact to every student, and to provide what could be an invaluable aid to the counselling department. If a faculty member has too many "advisees", he cannot be expected to serve them all, and at worst they could become an intolerable burden added to his existing work-load. Some small colleges which regarded the system highly have reluctantly had to abandon it under the pressure of numbers. This is a procedure therefore which must be entered upon with care; and watched and evaluated with wisdom as the college grows.

Apart from his advisees, every instructor will of course transmit notice of the students in his class who are marginal or liable to fail at as early a date as possible. The first semester (meaning the first for the student, not necessarily in calendar time) is critical in the two-year College, and a provisional assessment in some form is needed soon after the middle of that term, so that it can be evaluated before the end of the term. Counselling on transfers (within the programs of the College) can then be conducted: every student who has made the wrong choice, or is lacking in some aspect of performance, stands to gain from this, and the "salvage functions" of the College have a better chance of being realized. Every instructor will interview those among his advisees who are failing; so long as the total number of advisees for each instructor is not too large, this will be a small number and within his capacity. Whether or not the student is referred to the counselling department for further advice will then be dependent on an initial and friendly contact.

Placement Services, and Counselling Coordination.

Should a College help graduates to get jobs? There is no doubt that this is implicit in the career-orientation approach which a Regional College accepts. But it does not mean, of course, that the college guarantees a job. Nor does it mean that it takes over the placement work of the National Employment Service, or of the private recruitment activities of industries or governments. But it may serve as a highly important coordination centre. The possibility of developing comprehensive occupational information for the whole region has already been stressed. The Advisory Committees will provide a direct means for channelling information on employment needs, job-specifications, and technical requirements to the college, and particularly to the vocational instructors. The National Employment Service, following the precedent already established at the B.C. Institute of Technology and Simon Fraser University, would do well to establish a full-time officer in the college. American experience indicates forcibly that placement work, if it is to be done at all, must be done thoroughly and with continuity: it must not be left to intermittent recommendations by faculty members or telephone messages handled by secretaries. There should in fact be a standard agreement that all employment recommendations will be made known to the counselling department; and this department should work out modes of procedure with the N.E.S. representative.

It goes without saying that college counsellors should have close working relationships with all the high schools in the region (there are 15 or more in the central and northern Vancouver Island districts). This is so important that it might well be a subject for a special organization meeting with all principals and all counsellors in the total area, when the college is established. The minimum requirement is that college counsellors and perhaps some instructors should visit all high schools once a year: and this should not necessarily be confined to Grade XII students. Moreover, in the context of this Report, it is surely clear that the content of career information and discussion should cover the entire range of the occupational spectrum: while it is completely proper to discuss university entrance as factually and realistically as possible, the vocational territory should most emphatically not be limited to professional and university studies. It is worth noting that some progressive Junior Colleges regard this function of wide-spectrum career advising as so vital that they have installed counsellors in the high schools who are actually staff members on the college payroll. In the long view, this is worth considering. At least some experimenting with counsellors who give half their time to the college and half their time to a high school, so that educational and vocational counselling is their major job, might be attempted. Every encouragement should be given to high school personnel to visit the college: the college will no doubt consider an annual or even more frequent "Open House" as a logical recognition of its community constituency (and, on such occasions, the college buses will be invaluable). An additional idea which a few colleges have pioneered is a "Career Day", when the "wide spectrum" which has been advocated here in all its curriculum and job-preparation aspects is presented to the whole region, with the cooperation of all employers, for the general public, for parents, and for prospective students.

8. FINANCE, FACULTY, AND PLANNING

The Macdonald Report, provincially, and now the Bladen Report, nationally, have made it clear that huge public investments in education have to be made in the next ten and twenty years. Community colleges are a special item in this national budget, because they are now one of the best examples of shared expenditure. The public, as taxpayers, are of course providing all the funds. But it is not as familiar as it ought to be that one can be a Canadian citizen in more than one way: in a local, provincial, and a national capacity, to state the standard ones; but actually four ways are possible, because the regional dimension, which this Report has been especially concerned to interpret, is eminently available for the community college in its British Columbia context. Two other invaluable features are incorporated: the regional college is created by local initiative (confirmed by a general plebiscite of all voters); and, as the product of a group of cooperating School Boards, its costs are distributed over a number of communities - ten or twelve in the present instance.

Capital costs are shareable with the provincial government to the extent of 50 per cent, the local half being further shared between the School Boards proportionately. The formula for the latter is that the interest and capital repayment costs shall be distributed on the basis of a uniform mill-rate for all districts, unless a variation from this is worked out and accepted by Boards and ratepayers in advance. There must be approval of this undertaking by a referendum, voted by property-owners, authorizing a specific amount of debentures [Twenty-year debentures at 6% or less are standard in B.C. at present; and borrowing is facilitated by the provincial government's backing extended to municipalities, School Boards, etc., through its Capital Financing Authority.], and requiring a 60 per cent majority at this stage. There is general agreement in the two regions which have so far followed out this procedure, that a uniform mill-rate is much the most preferable method. The overriding consideration in this situation is that the local tax levy likely to be required for the total costs of the college, including the normal operating expenses as well as interest charges and capital amortization i.e., the annual budget of the college, is not likely to exceed 2 mills, and may actually be less. A mill-rate of 1½ on a property assessment of $3,000 is only $4.50 a year; 2 mills on $5,000 would mean only $10 a year, or less than $1 a month.[1] The cooperating communities for central and northern Vancouver Island represent a substantial tax-base of well over $400,000,000 (Table 16). It is altogether likely that a low mill-rate can provide ample funds. It must be added that a main-campus-plus-branch-campus plan is much less expensive than the construction of two separately organized and operated colleges.

There are several reasons for this relatively light local taxation. (1) From the Technical and Vocational Branch of the federal government, capital and operational grants are available for the technical instruction sectors of the college. There is a varied scale of grants, but typically the federal share is as high as 75 per cent. (2) Colleges are eligible for at least part of the federal university-assistance grant, paid currently to provinces on the basis of $2 per capita but recommended for increases in the Bladen Report. Whether all students qualify in determining a college's share of this grant is not yet clear, and there will have to be clarification on this point as community colleges become more general: but in any case this grant is made not to colleges directly but to the provincial government, which then makes allowance for this in its annual consideration of the college's budget and determination of the provincial grant. (3) Standard operational costs, i.e. the total of all approved expenditures, are shared with the provincial government, in accordance with formulas which are set out in the Public Schools Act. These include the reimbursement of salaries on the basis of one full-time staff member for every twenty full-time students; the computation of equivalent "full-time students' by dividing the total number of enrolment units by fifteen; and the definition of "units" as one lecture hour, or a laboratory or workshop of two hours per week.

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[1] Because of the home-owner grant (of $100) made to municipal taxpayers in B.C. by the provincial government, many property-owners, especially in rural areas, pay only $1 token tax. The smallness of this additional attributable tax to a Regional College may mean that the net cost to them as ratepayers may be nil.

A current assumption is that local taxpayers will not find themselves having to furnish more than 25 per cent of the college's operating expenses. It would not be serious if the proportion were higher - perhaps 33 per cent. It is important to remember that this share of responsibility is valuable: it is the concrete evidence of the community's stake in the college. If this is in fact a minority interest in the financing (depending on how the "local taxpayers" regard themselves as taxpaying citizens!), the communities nevertheless have the privilege of a major share in the college government.

Part of the local financing is offset (4) by fees. Whether fees should be charged or not, and what the scale should be, are decisions for the College Council. While demands for free schooling have been voiced (and this is the actual situation in California), the prevailing sentiment in Canada is that college fees are desirable as evidence of motivation, and that they are acceptable particularly when they are likely to be less than half the university levels: $150-$200 are the most frequently-mentioned figures, and fractional rates would be charged for part-time work and single courses [Student rates at Vancouver City College are $150 per year for technical programs and $200 for college and academic programs in the first year; $250 per year for the second year: separate courses, $20 and $25.]. These are not to be dismissed as negligible: as already indicated (Section 3), there is an important proportion of potential students for whom fees-plus-maintenance would be beyond their budgets. A generous number of bursaries for students who most need them, however, has more to recommend it than the elimination of fees. Students with the requisite (first-class and second-class) marks stand to benefit from the existing provincial government bursaries: it would be a welcome gesture on the part of the College Council (and School Boards) to earmark some small appropriation for bursaries and scholarships of their own. It is to be hoped that such a gesture would dispose private and corporate donors to follow the School Boards' example. Scholarships for adults who lack conventional high-school qualifications but show promise from other evidence, and for all students with good first-year attainment, to encourage them to complete Diplomas, would be particularly valuable. There is every expectation that all of these, along with loans, could be administered effectively and equitably, because of the necessity of careful assessments at the intake and registration points (Section 7) [Out-of-region students must be expected - and indeed welcomed, if they are testimony to the college's attractions. A suitable fee-scale can be constructed, which will still be inexpensive by university comparisons. If numbers were to grow, priorities for local residents would have to be protected.].

It remains to be mentioned that (5) current expenditures already being incurred by Boards for Grade XIII classes would no longer be required, so that this would represent an offset to the total new school expenditure in the region; and that federal grants for (6) the retraining of unemployed workers, and for (7) the post-secondary education of Indians, would be available for any students who fell into these categories. The numbers might be small; but it is certainly to be hoped that the courses developed within the college would include some "doors" suitably "open" for them.

Acknowledgement has already been given that residences properly planned as part of the capital construction of Regional Colleges are shareable as to cost. It would certainly be a welcome administrative simplification if these were financed, along with other buildings and equipment, on the basis of the uniform mill rate. Sliding-scales, which at first sight might seem to recommend themselves in view of differences in distance of the cooperating Districts, would be extremely difficult to work out, and even more cumbersome in operation if the attempt were made to set different board rates for students from different areas. Much the best plan is to build the subsidy-element (for students from the more distant localities) into the basic board rate itself. In other words, students who "live in" will pay less than the "economic costs" of building and operation: but contributions to compensate will be paid by districts who do not need residences because most or all of their students are able to commute. Board-free scholarships, incidentally, would be a valuable form of assistance which could be available to appropriate students, but their administration would be impeded if differential charges had to be imposed according to the distance from the college at which the recipient lived.

A general principle which comes into view here deserves to be formulated in relation to the total college budget. The college's financing comes from several sources - local revenue, provincial grants, federal grants, fees, etc: its educational program, however, and particularly its curriculum offerings, should be conceived and operated on a pooled basis. The accounts must of course be "kept straight": indeed, the basic accounting and all the statistics and records which pertain to it, will have to be meticulous. The college has to qualify for several different grants. But the total budget must be at the service of the college's educational task, which stands or falls on the achievement of balance and integration. It would be anomalous indeed if, for example, the blending of technical and general education courses were prevented because technical programs were so bureaucratically administered as to be restricted only to "technical" money. The purpose of grants-in-aid is to promote the training of people. It must be the privilege and responsibility of the college to put money to the best use in providing the means.

Faculty Recruitment.

It goes without saying that the strength of a college in the last analysis depends on its teaching staff. In a variety of ways, on which the B.C. Academic Board has elaborated in its guidance bulletin[1], the reputation of the college will stand or fall on the quality of its instructors: it can safely be predicted that Regional College Councils will outdo themselves in trying to attract the best. It would be unfortunate if this were interpreted as only a matter of salary-schedules. The attraction of helping to launch a new institution, of meeting "different" students, of a teaching context which is friendly to innovation, is very strong. The basic consideration for the college instructor is time. He will have an exacting teaching load. He should be assured at the outset that, while he will be asked to assume some other duties, they will not be unrecognized "extras": nominal teaching time, in other words, should not be allocated to anybody at more than say 80 per cent (allowing for lectures, student consultations, marking, as well as preparation). If he has a defined responsibility as well as that of instructor (e.g. career information coordinator) it may have to be recognized as half of his time. Evening classes should be distributed in reasonable ratio: they should probably be "weighted" as more onerous than day classes; an instructor required to give two a week should be assured of one weekday free of any classes, and so forth. Travelling arrangements must also be equitably arranged. (Some faculty might even be solely travelling instructors, for certain terms or periods. A considerable number of instructors will undoubtedly be drawn in on part-time schedules, also, and this will help to provide flexibility).

The suggestion is not uncommon that too many instructors may be recruited from high-school sources. This is not borne out by recent surveys conducted by the (U.S.) National Education Association covering more than 350 public junior colleges [Ray C. Marre. "The Biggest Problem: Finding Good Teachers". Junior College Journal, December 1965, American Association of Junior Colleges, Washington, D.C.]. Only a little more than three out of every ten have come from high schools; forty-five per cent have come from universities and colleges (a large proportion from graduate schools, 17 per cent from teaching posts, a very few from bachelor's degree classes, and from other educational services). The remaining 25 per cent are recruited from a great variety of sources, among which industry and business is most important, but less than half of the total. Teachers with high school experience, in any case, are highly regarded in many colleges: high schools, the B.C.T.F., and other teachers' organizations are well alerted these days to the need for experiment with new techniques and new methods of teaching. The best teachers from these sources will respond to the challenge, especially those who have already shown their liking for adults, and demonstrated their abilities in night classes.

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[1] Some Principles Regarding the Academic Organization of School District and Regional Colleges, Department of Education, Victoria. "The exacting task of acquiring a staff of suitably qualified teachers is the most crucial problem in ensuring the ultimate success of the college".

Faculty Participation.

It is well accepted that all instructors should be on probation for one or two years. What is of more positive importance is that there should be well-planned orientation sessions, so that each faculty member is familiarized with all branches of the college's work, and the philosophy and objectives which should actuate it. In general, he is made a partner in a flexible educational enterprise. The inter-communication which this requires is not too difficult when the college is small. A total staff of, say, thirty or forty may get to know each other easily, and even a full faculty meeting may not be too large for discussion. But every effort should be made to avoid the growth of "departmentalization": the essential practices of consulting with instructors, and of cutting across disciplines, have to be initiated early if they are to become good habits. One U.S. college with enlightened policies in this respect has responded to the enormous growth in its enrolment by subdividing its faculty meeting into "sections", each with membership from all departments; the sections permit discussions, the full faculty meeting (of over 100 persons) confines itself to decisions, after committee and section reports.

It is essential that a college, no matter how much computer-use it may be able to incorporate, should maintain a well-staffed clerical pool, whose function is clearly recognized by all concerned to be that of freeing the teacher of "paper work". Recording makes heavy demands, especially when admittance, program-guidance, and counselling must be taken seriously, and each term is self-contained. Not only visual aid equipment in the classroom, but teacher's aides should be experimented with in the grading of assignments, charging out of books, recording and attendance, etc., as well as the auxiliary services of recreation, sports, industrial visits, and so forth. It is imperative that each faculty member should have a separate office, with adequate provision for his books, files and teaching materials, and enough privacy to permit individual student-conferences. (Unwise "economies" in this respect are very common in some colleges). A faculty lounge which invites quiet reading, and which must not do double duty as a barely-furnished cafeteria, is a basic amenity. And there should be every encouragement for faculty members to use the Library. This requires not only reservation of a reasonable amount of study space, but as full a supply of periodicals in the main subject disciplines as possible, because of their prime importance in permitting a busy instructor to keep up-to-date in his teaching field.

If considerations such as these seem to pamper the teacher at the expense of the student, the answer is of course that the teacher is the college's basic asset. Furthermore, he is now a rather scarce asset. Here is a very recent statement from a Dean of Instruction in a Michigan college: "Colleges are grossly understaffed....... If we want to have excellent teaching faculties, and I am sure that we all do, we are going to have to realize that........community colleges are not just competing with other colleges and universities; we are also competing for brain-power with government, business and industry, and it is a full-time job, not only recruiting faculty on the outside, but maintaining the proper liaison with our current faculty members so that the good ones stay with us and don't go elsewhere".

One means of assisting recruitment is the organization of special post-graduate courses for prospective college teachers. This is in preparation at U.B.C., where the Faculty of Education has set up a special Committee on Higher Education to develop such courses for a range of Master's degree candidates. (In line with the recommendations of the Academic Advisory Board, the Master's degree will undoubtedly be regarded as a standard qualification for college instructors, at least in liberal arts, science, and social science subjects). M.Ed. courses can be completely designed with community college instruction and administration in view; but courses and seminars in the history, philosophy and special characteristics of regional and district colleges will be available as part of this program for post-graduate students who will otherwise be majoring in English, history, mathematics, physical sciences, etc. Comprehensive training programs are already available for counsellors, and for administration, and these are readily adaptable for candidates looking to college employment. Some of these courses will be available as evening and summer school instruction. Special training courses on a diploma or certificate basis are also being contemplated for guidance and counselling personnel [Some needs may be met on an ad hoc basis. Technical instructors, particularly, have characteristically been met by "borrowing" part-time, or on contract time, from industries, the civil service, I.B.M., etc. But there may well be persons otherwise competent to instruct who lack university degrees. The response of some colleges has been to enrol them, under appropriate arrangements, in their Academic Diploma program. This would be an entirely appropriate utilization of the special resources of the college curriculum.].

A special resource for all personnel, which has been much favoured by some energetic colleges in the United States, is a program of staff-development organized within the college, beginning with the orientation courses but continuing as a series of lectures, panel-presentations and discussions interspersed through the year. It requires careful planning if it is to succeed, because of the pressure there will be on the staff especially in the first years of operation: yet it will be in the first years of operation that it will be most needed. An alternative is that of staff-development institutes, e.g., for two weeks, in summer or spring, on a university campus. A variety of these are possible, and they could be worked out in collaboration with all colleges.

Planning and Building the College.

There have been great advances in school planning and school architecture in recent decades, and secondary schools in particular have benefitted from them. New universities, also, have given rise to great creative efforts, not only in structural innovation and exciting designs, but in seeking to embody new concepts of educational purpose, improved study techniques and closer student-faculty interrelationships among them. The regional college, having to start almost literally from the ground up, and to express its own educational goals, is a special challenge to the builder. Not least among the innovations of the community college is the idea that site, design and appearance are of symbolic as well as practical importance to the community; and that architects and educators must work together to produce buildings the community will be proud of, as well as buildings which are humanly and socially as well as technically efficient.[1] Unhappily, it is also true that the planners' efforts will be beset by two formidable complications - the need for classroom flexibility, yet the impossibility of completely foreseeing the changes in technical instruction which will occur in forthcoming decades; and the rapid enlargements which will be needed to take care of the accelerated enrolments which seem inescapable in the near future.

Once again it is no part of this report to attempt specifications in this area, but only to establish the preliminaries. It is clear that what is needed is an informed and cooperative discourse between educators and architects. To put it more bluntly, there are twin dangers in a Council deciding in very general terms what they want and then "leaving it to the architects", and in a group of architects (and engineers and other experts), no matter how competent, deciding on "a set of good buildings" and offering these to the Council. It was this realization which led to the setting up at Stanford University, in the School of Education, of a Community College Planning Centre, in 1963. Their first bulletin, Concepts, Guidelines and Issues[1], is such a valuable condensation of experience that it merits a full summary at this point. The "current issues" which they single out are as follows:

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[1] One of the most interesting products of this keen interest is Ten Designs for Community Colleges, a project completed by Educational Facilities Laboratories, Inc., 477 Madison Avenue, N.Y. This brought together ten outstanding architects and fifty advanced students of architecture at Rice University, (Houston, Texas), for ten days, where they produced designs for a set of hypothetical campuses involving every kind of difference in climate, size, and local character. The report is replete with ideas, but it does not necessarily solve the problems of reconciling curriculum, teaching, and student needs with building programs, referred to above.

1. The increased contemporary demand for education, (for retraining, upgrading, leisure, etc., as well as increased numbers).

2. The meaning of "community" (regional differences must be respected; buildings must reflect social purposes).

3. The uniqueness and similarities of community colleges (colleges need an identity).

4. Understanding the "students" of community colleges (they include adults, part-time workers, persons without career orientation).

5. The viability of comprehensiveness (the difficulties in balancing academic, technical, and community service offerings).

6. The problem of "transfer" courses (far more elect for university studies than complete them).

7. Understanding the contribution of well-designed campuses, and of facilities which encourage educational growth.

8. The need for communication between builders, architects, educators, and lay advisors, to achieve effective solutions.

9. Avoiding size formulas (the purpose of the college, and nature of the community's needs, should be prior determinants).

The bulletin concludes with the wise dictum that the "key to planning" is to ask the right questions, and they suggest ten:

1. Where should a community college be located to best serve its total constituency?

2. Should the automobile be allowed to determine the location and form which a community college should assume, or are there other more relevant determiners? Are other means of transportation appropriate?

3. Where are the real growth areas in the region which a community college intends to serve?

4. Should a community college devise facilities chiefly designed for late adolescent day students when the majority of people using the facilities are adults attending college in the late afternoon and evening hours?

5. What are the unique characteristics of students in community colleges which require different or unusual plants and facilities?

6. Where should collegiate administration be housed to facilitate its efforts?

7. Should library space, recreational space, and eating space be separated from each other or placed in close proximity? What factors are relevant to make such a decision?

8. How much of a campus area should be devoted to gymnasiums and other large recreational spaces? Are there general rules or are answers particularized?

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[1] Concepts, Guidelines, and Issues. Bulletin No.1 of Community College Planning Centre, College of Education, Stanford University, Palo Alto, 1964. The summaries made for the above text do not reproduce the exact wording of the bulletin, and the order has been changed to match the sequence of topics in the present report.

9. Should workshops be located in the same general area as are classrooms?

10. What forms should auditoriums take to facilitate maximum use by both students and members of a community?

Obviously, these questions begin to get into the detail of the physical units which make up a college. It is not proposed to do more here than to suggest, from some of the most recent experience, the major "vocabulary" of the college complex which will facilitate discussion between administrators, Council, and architects. The main sectors of a Regional College which have to be considered are the following:

1. **Administration**
2. **Study Centre**
3. **Student Centre**
4. **Humanities and Social Sciences**
5. **Sciences**
6. **Technical**
7. **Faculty Centre**
8. **Student Residences**

This initial vocabulary permits certain principles to be discussed. Thus, for example, Residences and the Student Centre might have interconnections; but a contrary view is that residences, in being primarily sleeping quarters, should be as remote as possible from the hub of the campus, and the Student Centre should be designed primarily for multiple daytime use, and of course for club and association activities on occasion in evenings. Whether Humanities and Social Sciences should have separate units, or be housed in adjacent wings, depends on their size: it would be reasonable to consider two inter-connecting wings, or even corridors at first, separate units later. It is to be assumed that there will be ready connections between all teaching units, and of course that all are reasonably close to the Study Centre. But scientific and technical equipment dictate some differences in the planning (size of rooms, and strength of construction, utilities, service access, etc.). By the same token, laboratories and classrooms cannot be assumed to be interchangeable, apart altogether from noise-factors, power installation, etc. It is assumed, too, that the teaching areas will be linked by tiers of faculty offices; but that the faculty offices will be separated by appropriate construction from the classrooms. The Faculty Centre (including restaurant, reading room, meeting rooms) might have interconnection with the Student Centre or be completely separated, depending in the first instance on the size and scope of the Student Centre itself. The Library, as already indicated, is better described as the Study Centre, and would be so placed in relation to all other main features as to be clearly the college centre. The siting of facilities such as the college bookstore, playing fields, gymnasium, etc., can best be projected in relation to the main vocabulary.

A long-range plan of at least ten years, divided into "phases", of which the initial one is to provide facilities for the first two years, is the only reasonable approach to accelerating numbers. For the Vancouver Island campuses it will be wise to build for at least 1,000 students immediately, with 3,000 in view within ten years. The problem is to reconcile a long-range plan with short-range construction. More of the first buildings therefore may be designed for multiple use, than will be the pattern later. A library unit may start with some office space, eventually to become entirely library: the first administration unit may utilize some of its space for lecture-rooms; and so on. Foresight is necessary to prevent the phenomenon of reconstruction going on in one part of a building while classes are being conducted in the other. Accordingly, a more or less "cellular" pattern of development is being favoured in many new plans. A branch campus of course requires separate consideration and will be simpler in several ways, but will need to work from the same basic vocabulary. Dimensions such as 300 students initially, growing to 1,000 within ten years, will have to be laid down, after appropriate discussion. It is important for public information to understand that the initial costs measured in any proportionate way (e.g., per student) are likely to be much higher, because of site-preparation, the installation of utilities,

etc., in the first stages. Later, a number of overheads, maintenance provisions and common services will be available for the added facilities.

It goes without saying that all administrative personnel, such key people as the Librarian, and any appointed or prospective instructors, should have opportunities of participating in these discussions, if they are available. There have been a few examples of newly-built units in which all faculty have been consulted, and a few, so rare as to be completely exceptional, in which students have been consulted. When colleges have to be built before classes can begin, this issue can hardly arise. But it should not be ignored in the long-range perspective. There will have to be many provisional answers to the questions posed above. Some of the experience might be usefully reviewed for the benefit of those who come later.

9. PROSPECTS AND PERSPECTIVES.

This long examination of curriculum and educational policy requires a final dimension - that of perspective. A Regional College is a local institution, and it should draw great strength from its community roots; but it must have a national, and even an international outlook. It must share in the most difficult of all the higher education tasks - that of interpreting the modern world. If American experience is any guide, indeed, there will soon be a small but increasing flow of overseas students because two-year programs, whether preparatory or complete in themselves, as well as the great boon of combined technical and general education meet the needs of many people, and many economies. The college must be regional - a mobilizer of local educational potentials - but it must not be parochial. This is why the administrators and instructors must be the best obtainable; and it is one of the reasons why they will be hard to get. The college has to represent, though with the right to its own interpretation, the finest traditions of higher education.

A continuing concern of far-reaching consequence will be that of public understanding. Relating technical to "academic" education, and relating college to university and other kinds of education, are not matters which are going to be taken for granted by everybody. The difficulties which lie in the way of ready acceptance may be illustrated by reference to the two-year college developments which have been adopted as policy in Ontario. The careful exposition recently given by the province's Minister of Education [Education in Ontario: Presentations by Hon. William G. Davis, Minister of Education. Ontario Legislative Assembly, June 2nd, 1965. Queen's Printer (Ontario), Toronto, 1965.] makes it clear that a double-track approach is envisaged. (a) The new colleges are not geared to the university system; they will not incorporate "transfer" or "college parallel" courses leading to advanced placement in universities. Frank recognition of their technical character appears in their title, the Colleges of Applied Arts and Technology. (b) University provision is established partly by the new universities themselves, but also by the continuance and strengthening of the pre-existing Grade XIII courses newly designated as the Matriculation Year, the curriculum for which is being designed specifically as a university-entrance program.

There is no lack of recognition in this plan that the two groups or levels are equally important. Indeed, the policy is accepted that opportunities must be provided for "this segment of the population who are not university-bound", and that the numbers enrolled, and perhaps the cost, "may well outstrip the university family". Nevertheless, these are two separate channels and time is likely to emphasize their separateness. It should be added that there are already seven Institutes of Technology (not including trade schools) in Ontario (Appendix G5), besides the existing five older universities, and six or more newly-created ones.

The British Columbia situation is simpler. It has only one fully-equipped and centralized Institute of Technology; only two public universities have been added to its former single and centralized university. It is still possible for the new Regional Colleges to develop the "common channel", offering routes to both the universities and to technical occupations. In general, also, this is consistent with the multiple-choice pattern newly established for the later grades in the secondary school system. This should lead "both ways". But there are obstacles at present, one of the greatest of which is the decided preference of students and parents (and there is evidence that it is shared by teachers, and not a few counsellors) for the "university" option. When it is more fully understood that this is really the academic-technical option (as it is so described) in the sense that it provides the channel for either the University or the B.C. Institute of Technology, but that the Institute diploma is a two-year completed program, it will be easier for both the schools and the B.C.I.T. to function.

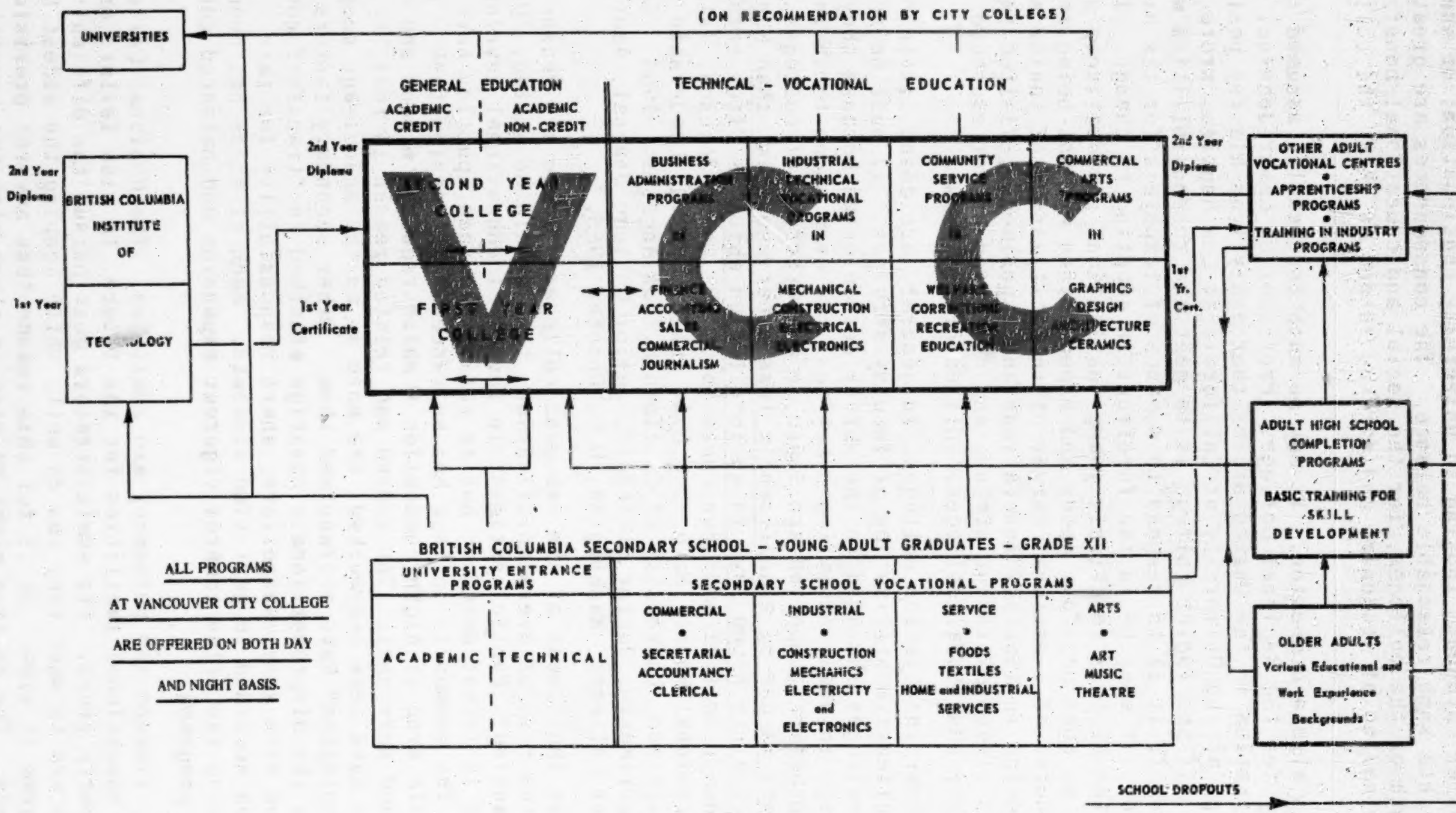
But there must be recognition that the student electing the vocational options in high school can continue his education through the Regional College or of course through the City Colleges and District Colleges, where these are established. In the large city, if there are several vocational institutions, flexibility can be maximized. The possibilities envisaged by Vancouver City College (which has the advantage of combining the sixteen-year-old Vocational Institute and the forty-year-old School of Art) are so illuminating in this regard that they are reproduced here, as Fig.5. A highly important question for the future is whether college-trained technical students will be the majority; or whether they will continue to be a minority, compared with the majority of "transfer" students looking to university continuation; or whether the two groups will grow into some reasonable balance. The consequences are great, for the curriculum strength of the colleges, for the social and educational benefits which derive from the mingling of students, and for the esteem in which the colleges will be held.

Experiment is also a dimension. It may be much too readily assumed that it is a simple possibility for the Regional College. Professor B. Lamar Johnson, who knows the Junior College situation in the United States thoroughly from his key position in the School of Education at the University of California at Los Angeles, wrote as recently as October 1965: "If the junior college is to meet the responsibilities which are being thrust upon it, and if it is to respond to demands of taxpayers for the highest efficiency of operation, it must be in the forefront in adapting to change. This can justifiably be expected of this relatively young institution, comparatively unhampered by tradition." But, he goes on, "our needs and expectations are not being realized." Dr. Johnson, in the course of a national survey of the utilization of junior college faculty services, seeking to identify innovations and experiments, visited twenty-eight junior colleges in eleven different states, and conferred or corresponded with representatives of eighty additional colleges. His conclusion was:

> "It is clear that junior colleges, in general, are doing little experimentation in the effective utilization of faculty services. It must be recognized that most of the colleges included in the survey were elected because they have been known to engage in some innovating practices, but even among these institutions most of the practices reported are found in a scattering of colleges only. The general picture is one of significantly less experimentation than would be expected, or certainly hoped for, in an institution which is often referred to as "the most dynamic unit of American education." [B. Lamar Johnson, Islands of Innovation, Occasional Report No.6, U.C.L.A. Junior College Leadership Program. School of Education, University of California, Los Angeles: 1964. See also "Needed: Experimental Junior Colleges", Junior College Journal, American Association of Junior Colleges, Washington, D.C. October 1965.]

This is not an indictment of the two-year colleges. There are reasons for this showing; and, at the risk of oversimplification, they should be stated. One is a lag in public understanding. Public sentiment in favour of educational development has moved fast and far in recent decades; but in voting the ends, publics have not always voted the means. The community college has an exceedingly complex task - probably the hardest in the whole area of higher education - which requires wisdom and organization, but also finance and personnel. The second and related reason is that, by and large, the college staffs have been overworked, the more so as the school-age components in the "population explosion" have overwhelmed them. Other secondary factors which must not be ignored are the disproportionate prestige attached to "transfer" courses - students, parents, and even some counsellors, share responsibility for this - and the unwilling recognition accorded to part-time students. Each of these has been of some consequence in lessening the drive towards vigorous expansion and balanced coordination of community service programs.

Nevertheless, finance and personnel are realities. The Regional College is too important a part of educational facilities for the future, to risk failure and disappointment in its early years. Its administrators must pursue the difficult objective of limiting themselves to what they can do well, while keeping the widest horizons of a comprehensive program in view. It is for this reason that several provisional suggestions have been made. The college might be wise to start with two (equal) terms rather than three. A shorter summer session could be planned for some of the extra courses that are most needed. The Development Program, strategic as it is for disadvantaged students, and for "open door" counselling, might be postponed for one year, until some


(ON RECOMMENDATION BY CITY COLLEGE)
UNIVERSITIES
2nd Year Diploma
BRITISH COLUMBIA INSTITUTE OF TECHNOLOGY
1st Year
GENERAL EDUCATION
ACADEMIC CREDIT
ACADEMIC NON-CREDIT
2nd Year Diploma
1st Year Certificate
SECOND YEAR COLLEGE
FIRST YEAR COLLEGE
VCC
TECHNICAL - VOCATIONAL EDUCATION
BUSINESS ADMINISTRATION PROGRAMS IN
FINANCE ACCOUNTING SALES COMMERCIAL JOURNALISM
INDUSTRIAL TECHNICAL VOCATIONAL PROGRAMS IN
MECHANICAL CONSTRUCTION ELECTRICAL ELECTRONICS
COMMUNITY SERVICE PROGRAMS IN
WELFARE CORRECTIONS RECREATION EDUCATION
COMMERCIAL ARTS PROGRAMS IN
GRAPHICS DESIGN ARCHITECTURE CERAMICS
2nd Year Diploma
1st Yr. Cert.
OTHER ADULT VOCATIONAL CENTRES
APPRENTICESHIP PROGRAMS
TRAINING IN INDUSTRY PROGRAMS
ADULT HIGH SCHOOL COMPLETION PROGRAMS
BASIC TRAINING FOR SKILL DEVELOPMENT
OLDER ADULTS Various Educational and Work Experience Backgrounds
BRITISH COLUMBIA SECONDARY SCHOOL - YOUNG ADULT GRADUATES - GRADE XII
UNIVERSITY ENTRANCE PROGRAMS
ACADEMIC
TECHNICAL
SECONDARY SCHOOL VOCATIONAL PROGRAMS
COMMERCIAL
SECRETARIAL ACCOUNTANCY CLERICAL
INDUSTRIAL
CONSTRUCTION MECHANICS ELECTRICITY and ELECTRONICS
SERVICE
FOODS TEXTILES HOME and INDUSTRIAL SERVICES
ARTS
ART MUSIC THEATRE
SCHOOL DROPOUTS

ALL PROGRAMS
AT VANCOUVER CITY COLLEGE
ARE OFFERED ON BOTH DAY
AND NIGHT BASIS.

Fig. 5. A diagramatic representation of educational and training channels between high schools, Vancouver City College, and other higher educational institutions.

appropriate data and experience from courses given during the first two terms, can be reviewed. Some of the community service undertakings, pressing though they will be, might be kept in the planning stages rather than hurried into operation, or perhaps projected for "pilot" purposes to a summer session. The first dictum of Professor B. Lamar Johnson, in his admirable manual[1] which codifies the experience of dozens of colleges, not alone in California, is that "the time typically available for planning and starting a junior college is all too short", and he adds "there is no evidence to suggest that available time will in the future be extended significantly."

Time is the final dimension. What is true of the planning time will also be true of the first years of operation. Because at least a little planning time is available, and because it is so necessary to gain public understanding of all that is involved, this report has ranged far in seeking to uncover some of the guidelines for sound procedure. Perhaps it is permissible to end on a truly long-term note. The successful Regional College will develop as a unique institution, not only in substituting for present inadequacies an organized set of educational and vocational channels, but as a community centre setting its stamp upon the region, giving it character and direction which it was not able to possess before. It should be able to accomplish this as a self-contained institution, with well-defined purposes, unwilling to change them for something else. It should accordingly be able to resist the pressures, which will surely grow around it in time, to become a four-year institution and another university. The university and the college have different functions in the future world of work and opportunity: it will be a great achievement if the Regional College clearly establishes its own.

---

[1] B. Lamar Johnson, Establishing Junior Colleges. Junior College Leadership Program, School of Education, University of California at Los Angeles 1964. This invaluable publication is developed from a National Conference, and the experience of leading educators, the American Association of Junior Colleges, and the Accrediting Commission of the Western Association of Schools and Colleges.

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Appendix A (Part I). THE SURVEY AREA

The Survey Area, defined primarily by the nine School Districts, but in broad terms all of Vancouver Island north of the Malahat, is measured in both Table 2 and Table 3. The larger (territorial) definition accounts for 44 per cent of the Vancouver Island population, whether measured by ordinary Census data or School District compilations. The excluded school districts (besides those of Greater Victoria) - Gulf Islands, Tofino-Ucluelet, and the more remote parts of the northern territory - account for 6,900-7,000 persons (1961): their exclusion has the desirable effect of keeping estimates in this Report on the conservative side. The "Survey Area proper", defined by the nine School Districts (Table 2), represents 41 per cent of Vancouver Island: 121,300 out of 290,800 in census terms, 116,600 out of 286,200 in School District terms.

Vancouver Island, judged by population, represents approximately 18 per cent of the British Columbia total (18.5 in 1951, 17.9 in 1961). Substantially the same proportion is true for households (37,500 out of 85,000 households in 1961). It must be remembered that households is a wider term than families: 15 per cent of the households are one-person units. The total number of families on Vancouver Island was 71,300 in 1961, or 18 per cent of the 394,000 in British Columbia. 38,700 families lived in Greater Victoria, so that the Survey Area can be assumed to have had some 32,000 families in 1961, or about 35,000 today.

The main urban centres, and their immediately adjacent populations, are clear from Table 2 or Table 3. Adjacent populations are not always strictly suburban; there is a good deal of scatter, which is depicted in Figs.1 and 2. Only Nanaimo and the now-combined Albernis (Alberni and Port Alberni) are of any substantial size. There are a number of quite small towns, such as Parksville, Qualicum, Comox, etc., and settlements of even less than 1,000 population are the rule in the farthest northern sector. Greater Victoria is a metropolitan centre by comparison with the rest of the Island.

Rates of growth (Table 4b) also point up the uniqueness of the newer Victoria, Saanich and Sooke residential developments: even outer-metropolitan Vancouver, whose rates of growth far outstrips the "core" city, registered only 41 per cent increase in comparison with the 117 per cent in "outer-Victoria" areas during 1951-61. It will be noted that the total Island population has not grown as rapidly as the province as a whole, but is nevertheless growing faster than the national average (30 per cent during 1951-61).

Table 3. Urban Centres of Vancouver Island (as at 1961)

Districts and Main Centres	Population (1961)	P.C. of Total
1. Greater Victoria Area	162,452	55.8
City of Victoria*	54,941	(18.9)
2. Nanaimo Area	40,569	13.9
City of Nanaimo*	14,135	(4.9)
3. Albernis Area	26,072	8.9
The Albernis*	16,176	(5.6)
4. Courtenay-Campbell River Area	27,003	9.4
Courtenay*	3,485	(1.2)
Campbell River*	3,737	(1.3)
5. Duncan Area	24,779	8.5
Duncan*	3,726	(1.3)
6. Northern Sector	9,960	3.5
Vancouver Island	290,835	100

Source: Census 1961: various bulletins.

*Urban centres listed above total 96,100 or 32.2 per cent of the Island population; but all urban centres in the Survey Area (including e.g. Ladysmith, Comox, etc.) would represent 43-45 per cent. Urban centre boundaries do not coincide with School Districts, hence there are differences between Tables 2 and 3.

Table 4a. Comparative Growth of Vancouver Island Population, 1901-1961

Year	Population Totals Vancouver Island	Okanagan	British Columbia	Index Numbers 1941 = 100 V.I.	Okan.	B.C.
1901	50,900	12,100	178,700	34	23	22
1911	81,200	28,100	392,500	54	54	48
1921	108,800	35,500	524,600	72	69	64
1931	120,900	40,500	694,300	80	78	85
1941	150,400	51,600	817,900	100	100	100
1951	215,000	77,700	1,165,200	143	151	142
1956	256,400	84,900	1,398,500	170	165	170
1961	290,800	94,600	1,629,100	193	183	199

Table 4b. Comparative Growth of Vancouver Island Population, 1951-61

Area	Population 1951	1961	P.C. Increase 1951-1961
Canada	18,009,400	18,238,000	30.2
British Columbia	1,165,200	1,629,000	39.8
Vancouver Island	215,003	290,835	35.2
Metropolitan Victoria	74,689	162,452	117.0
City of Victoria	51,331	54,941	7.0
Metropolitan Vancouver	562,000	790,000	40.6
City of Vancouver	344,800	384,600	11.5

Source: Census 1961, various bulletins.

Table 5. Comparative Increases in Population and School Enrolment: Three B.C. Regions

Region	School Enrolment 1954-5	1963-4	Average Annual Enrolment	Increase P.C. Population
West Kootenay	13,576	18,018	3.6	1.8
Okanagan	17,236	23,654	4.1	2.2
Vancouver Island	39,563	67,165	7.5	3.6
British Columbia	223,840	378,641	7.7	4.0

Source: Adapted from material supplied by Division of Tests and Standards, Department of Education, Victoria.
School Districts included are: W. Kootenay (5-10, 11, 19); Okanagan (12-17, 21-23, 77, 78); Vancouver Island (65-74, 61-64, 79 and unattached). For Survey Area figures, see accompanying text.

Table 6. **Estimated Population for some Comparative Regions, British Columbia, 1965-75**

(Population figures in thousands)

Region	1951	1956	1961	1965	1970	1975	P.C. 1965-75
Vancouver Island (a)	215.0	256.4	290.8	315.0	358.0	407.0	29.2
Okanagan	77.7	84.9	94.6	102.0	117.0	135.0	32.4
West Kootenay	60.1	65.6	70.7	75.0	85.0	95.0	26.7
Lower Mainland	649.2	767.9	907.6	993.0	1,140.0	1,310.0	31.9
British Columbia	1,165.2	1,398.5	1,629.0	1,782.0	2,050.0	2,370.0	32.9

Source: Memorandum on British Columbia Population Projection to 1975, Bureau of Economics and Statistics, Victoria, 1964.

(a) Including Gulf Islands.

Comparisons with other regions can only be made for the Island as such, and not for the Survey Area, but are instructive in what they show. British Columbians are ten times as numerous as they were at the beginning of the century; and growth since 1941 is of the order of 200 per cent. Vancouver Island has grown in this period more than the Okanagan, which would indicate that the Survey Area has about equalled Okanagan population growth.

School expansion has been the most marked feature in the last decade or so, far outpacing population increases (Table 5). School enrolment increases have been extensive in both the Okanagan and West Kootenays, where Regional Colleges are now projected, but not as spectacular as on the Island or in British Columbia as a whole (the latter figure reflecting the heavy growth in metropolitan Vancouver). The school enrolment figures for the Survey Area, 18,503 in 1954-5 and 31,222 in 1963-4, are substantially largerthan those of the two other regions: the average annual increase, 7.8 per cent per year (for the 1954-64 decade), is actually a little higher than for Vancouver Island as a whole. As mentioned in the text, and illustrated in Table 6, some slackening-off in the rate of this growth is anticipated for the next decade (1965-75), but the increases are still formidable. Somewhat heavier demand or college potential seems projected in the Okanagan, somewhat less in the Kootenays and on the Island, but increases, of the order of 3 per cent per year, are the wisest assumptions on which to base plans.

Appendix B (Part I). "COLLEGE POTENTIAL" STATISTICS.

Table 7. **Estimated Population Trends, School Districts of the Survey Area, 1956-71**

School District	1956	1961	1966	1971
(71) Courtenay	15,800	17,500	19,400	21,000
(72) Campbell River	10,700	11,000	12,700	14,000
(73,74) Alert Bay, Quatsino	9,400	9,200	10,300	11,500
Northern Sector	35,900	37,700	42,400	46,500
(68) Nanaimo	23,800	27,800	34,500	40,000
(70) Alberni	19,200	22,400	27,800	32,000
(69) Qualicum	4,800	5,200	5,700	6,200
Central Sector	47,800	55,400	68,000	78,200
(67) Ladysmith	7,600	8,000	9,100	10,000
(65) Cowichan	14,000	16,700	19,900	22,500
(66) Lake Cowichan	5,900	5,700	6,200	6,700
Southern Sector	27,500	30,400	35,200	39,200
Survey Area	111,200	123,500	145,600	163,900

Adapted from material supplied by Bureau of Economics and Statistics, Victoria. Survey Area does not include the Gulf Islands, or Ucluelet-Tofino, whose populations were 3,000 and 1,700 in 1961; also some parts of northern Vancouver Island (Bamfield, Zaballos, etc.) accounting for some 2,200 population in 1961.

Table 8. Estimated Population Growth, School Districts in the Survey Area, 1961-71.

School District	Percentage Increases	
	1961-66	1966-71
Nanaimo	24.1	15.9
Alberni	23.6	15.6
Cowichan	19.1	13.1
Campbell River	15.0	10.7
Ladysmith	13.8	9.9
Northern (71,72)	12.0	8.6
Courtenay	11.0	8.1
Qualicum	10.6	7.8
Lake Cowichan	9.6	7.2
Survey Area	17.9	12.6

Table 9. Enrolment in all Public Schools, British Columbia, 1960-65
(Figures to nearest hundred)

Classes	1960-61	1964-5	P.C. Increase (5 years)
Kindergarten	4,000	10,800	(170.0)
Grade I	35,600	39,200	10.1
II	32,900	36,700	11.6
III	31,500	35,000	11.1
IV	29,500	34,000	15.3
V	28,600	33,200	16.1
VI	28,200	32,000	13.5
VII	29,100	31,000	6.5
Grade VIII	28,000	29,600	5.7
IX	24,200	28,400	17.4
X	19,600	25,800	31.6
XI	16,300	24,300	49.1
XII	12,900	19,900	54.3
Grade XIII	1,400	3,700	(164.3)
Total (a)	321,800	383,700	19.2

Source: Data supplied by Division of Tests and Standards, Department of Education, Victoria. (a) There were also in 1964-5 5,400 children in special classes and 5,300 in Occupational classes. These are not included in the above figures. The complete total for 1964-5 is 394,400.

Table 10. Projections of Public School Enrolment, British Columbia, 1961-75.

(Figures to nearest hundred)

Population element	1961	1965	1971	1975
School-age population				
a. "Probable" estimate	380,900(b)	441,800	524,100	573,800
b. "Low" estimate	374,900	424,300	485,400	518,000
Total school enrolment (a)				
a. Chant Report	329,800	380,200	449,600	491,900
b. Actual	340,200	*	-	-
Grade X pupils				
a. Chant Report	21,800	25,000	31,400	34,200
b. Bureau of E. & S.(c)	22,400	(28,400)	34,500	40,200
Grade XII pupils				
a. Chant Report	12,700	21,300	20,100	22,500
b. Bureau of E. & S.	13,700	(23,800)	24,900	29,600

Source: Royal Commission on Education (Chant Report), Victoria, 1960, chapters III-IV. (a) Fall enrolment, 1961-2 year, etc. (b) Appears in Report (p.35) as 480,921 but this is presumably a typographical error. (c) Figure for 1961 (underlined) is actual figure for 1961-2 session. Other figures are adapted from Bureau of Economics and Statistics estimates to fit school years. *Actual enrolment in 1964-5 was 383,700; or 394,400 if children in special classes and Occupational classes are included.

Table 11. Birth Rate and School Enrolment, British Columbia, 1950-1975.

(Approximations; nearest thousand only)

Year	Births		School Enrolment		Ratio of Enrolments to Birth
	No.	Index (1950=100)	No.	Index (1950=100)	
1950	29,000	100	173,000	100	6.00
1955	36,000	124	241,000	139	6.69
1960	39,000	134	322,000	186	8.26
1965	37,000	128	395,000	228	10.67
1970	40,000	138	460,000	260	11.50

Source: Adapted from material supplied by Division of Tests and Standards, Department of Education, Victoria.

Table 12. Estimated Trends in the Critical Age-Groups, British Columbia, 1961-75.

Year	5-14	15-19	Men and Women aged 20-24	
			Numbers	5-year increases P.C.
1961 M	164,764	57,726	47,758	-
F	157,586	54,927	47,472	-
Total	322,350	112,653	95,230	-
1965 M	185,000	74,500	56,000	17.2
F	177,500	71,000	54,500	14.7
Total	362,500	145,500	110,500	16.1
1970 M	205,000	90,500	79,000	41.1
F	197,500	86,500	77,000	41.3
Total	402,500	177,000	156,000	41.2
1975 M	229,500	105,000	95,500	20.9
F	219,000	101,000	92,000	19.5
Total	448,500	206,000	187,500	20.2

Source: Census 1961, and Bureau of Economics and Statistics, Victoria.

Table 13. Comparative Increases of Population and School Enrolment Vancouver Island and Survey Area, 1956-1961.

School Districts	Total Population (1961)	5-year Increase 1956-61	School Enrolment (1960-61)	5-year Increase 1955-60
Greater Victoria	129,791	10.7	22,843	33.8
Sooke	11,770	53.7	2,489	54.4
Saanich	13,940	21.1	2,855	41.2
Victoria Area	155,501	14.9	28,187	36.4
Northern	33,871	0.6	7,602	34.7
Courtenay	15,694	-0.2	3,700	28.0
Campbell River	10,573	7.7	2,550	39.9
Alert Bay, Quatsino	7,604	6.2	1,352	45.5
Central	62,195	15.0	14,103	35.5
Nanaimo	27,373	17.3	6,037	42.6
Alberni	22,094	17.0	5,064	36.6
Ladysmith	7,655	5.1	1,877	29.1
Qualicum	5,073	10.6	1,125	10.5
Southern	21,059	14.7	4,789	26.0
Cowichan	15,491	17.8	3,321	32.6
Lake Cowichan	5,568	4.3	1,468	13.4
Survey Area	117,125	12.6	26,494	33.3
All British Columbia	1,598,340	16.8	321,760	33.7

Source: Material supplied by Division of Tests and Standards, Department of Education, Victoria.

Table 14. Public School Enrolments, Vancouver Island and Survey Area, 1954-64

School Districts	Enrolments				Average Yearly P.C. Increases	
	1954-5	1957-8	1960-1	1963-4	'55-'58	'61-'64
Greater Victoria	15,750	19,650	22,843	26,812	8.2	5.8
Sooke	1,542	1,938	2,489	3,159	8.7	8.8
Saanich	1,869	2,413	2,855	3,497	9.5	6.6
Other areas not in Survey (a)	1,898	2,042	2,368	2,475	2.2	1.4
Sub-total	21,059	26,043	30,555	35,943	7.6	6.3
"Northern"	5,314	6,383	7,602	9,376	6.6	7.9
Courtenay	2,796	3,267	3,700	4,521	5.9	7.2
Campbell River	1,622	2,144	2,550	3,221	10.7	8.3
Alert Bay, Quatsino	896	972	1,352	1,634	2.6	6.9
"Central"	9,670	12,137	14,103	16,332	8.5	5.2
Nanaimo	3,960	5,020	6,037	7,115	8.9	6.0
Alberni	3,335	4,321	5,064	5,867	9.8	5.7
Ladysmith	1,379	1,720	1,877	2,043	8.2	2.8
Qualicum	996	1,076	1,125	1,307	2.6	5.4
"Southern"	3,520	4,356	4,789	5,514	8.6	5.9
Cowichan	2,269	2,994	3,321	3,997	10.4	6.8
Lake Cowichan	1,251	1,362	1,468	1,517	2.9	1.1
Survey Area	18,504	22,876	26,494	31,222	7.8	5.9
Total Vancouver Island	39,563	48,919	57,049	67,165	7.8	5.9
Total British Columbia	223,840	277,249	321,760	378,641	7.9	5.9

Source: Adapted from material supplied by Division of Tests, Standards and Research, Provincial Department of Education (Principals' Reports).

(a) Gulf Islands; Ucluelet; and unattached pupils.

Table 15. Public School Enrolment, Grades IX-XII, Survey Area, 1960-61 to 1964-65

a. Boys

Grade	1960-61	1961-62	1962-63	1963-64	1964-65
Central Sector (4)					
IX	529	555	597	643	547
X	489	549	553	579	506
XI	454	563	442	579	652
XII	236	235	295	348	364
Southern Sector (2)					
IX	185	200	229	234	224
X	162	162	180	201	225
XI	106	124	135	144	171
XII	80	91	103	101	108
Northern Sector (2)					
IX	237	268	274	260	314
X	201	225	234	263	245
XI	174	181	201	219	257
XII	129	164	145	182	159

b. Girls

Grade	1960-61	1961-62	1962-63	1963-64	1964-65
Central Sector (4)					
IX	480	622	608	590	542
X	412	479	570	566	545
XI	359	366	344	515	501
XII	254	254	273	320	398
Southern Sector (2)					
IX	154	218	196	205	211
X	137	144	197	181	195
XI	128	110	122	152	147
XII	83	90	83	109	123
Northern Sector (2)					
IX	240	262	276	282	281
X	182	193	232	274	237
XI	159	168	174	233	261
XII	95	132	122	136	176

Source: Compiled from data supplied by eight School Boards: "Northern Sector" includes two School Districts only.

Table 16. Public School Enrolment, Grades IX-XII Survey Area, 1960-61 to 1964-65

(Combined figures for 8 School Districts)

Grades	1960-1	1961-2	1962-3	1963-4	1964-5
All Pupils (a)					
IX	1825	2125	2180	2219	2119
X	1583	1752	1966	2064	1953
XI	1380	1412	1418	1860	1989
XII	877	966	1021	1196	1328
Boys only					
IX	951	1023	1100	1142	1085
X	852	936	967	1043	976
XI	734	868	778	960	1080
XII	445	490	543	631	631
Girls only					
IX	874	1102	1080	1077	1034
X	731	816	999	1021	977
XI	646	544	640	900	909
XII	432	476	478	565	697

Source: Compiled from data supplied by eight School Boards.

(a) Average enrolment (5 yrs.): IX,2194; X,1844; XI,1612; XII,1078. Index on base Grade X = 100: X,84.5; XI,73.5; XII,49.1.

Table 17. High School Students on Academic and Vocational Programs, Grades IX-XII, 1963-4 and 1964-5

(Seven School Districts)

Grades	1963-4		1964-5	
	Acad.	Voc.	Acad.	Voc.
Boys				
IX	542	248	537	276
X	468	222	538	249
XI	497	241	557	320
XII	386	171	408	174
Girls				
IX	561	262	565	249
X	375	276	555	253
XI	565	300	456	372
XII	341	196	413	246
Total				
IX	1103	510	1102	525
X	843	498	1093	502
XI	1062	541	1013	692
XII	727	367	821	420

Source: Compiled from data supplied by School Districts. Acad: university program. Voc: vocational or general program (including commercial).

Table 22. First-Year Entrants to UBC from Vancouver Island Communities, Sessions 1960-1 to 1964-5

a. Numbers

Region and sub-regions	1960-61		1961-62		1962-63		1963-64		1964-65	
	M	F	M	F	M	F	M	F	M	F
Greater Victoria	65	34	102	48	109	54	87	62	102	62
Central Areas (a)	57	20	87	43	67	44	69	46	89	35
Northern Communities	31	17	46	17	31	14	32	20	32	18
Gulf Islands	4	1	4	3	10	-	-	4	2	2
Survey Area	88	37	133	60	98	58	101	66	121	53
Vancouver Island	157	72	239	111	217	112	188	132	225	117

b. Geographical Distribution

Sub-region	Numbers		P.C. Distribution	
	1960-1	1964-5	1960-1	1964-5
Greater Victoria	99	164	43.2	47.9
Central Areas (a)	77	124	33.6	36.2
Northern Communities	48	50	21.0	14.6
Gulf Islands	5	4	2.2	1.2
Vancouver Island	229	324	100	100

Source: Special compilation, University of British Columbia records.

(a) Includes Cowichan and Lake Cowichan for this compilation.

Table 23a. New Entrants to UBC from Vancouver Island, 1960-61 and 1964-65

Faculties in Which Students are Registered

Faculty	1960-61				1964-65			
	Men		Women		Men		Women	
	1st	2nd+	1st	2nd+	1st	2nd+	1st	2nd+
Arts	34	9	21	9	26	21	18	22
Science	29	17	3	1	50	34	11	6
Applied Sciences (a)	24	-	-	-	28	-	-	-
Health and Medical	5	-	3	11	6	-	12	8
Education	3	10	7	12	7	20	11	11
Commerce	4	13	1	-	13	7	-	-
All others (c)	5	2	4	-	5	5	7	6
Total (b)	104	53	39	33	136	89	64	53

Source: Special compilation, U.B.C. records. "2nd+" means second and all subsequent years.

(a) Including Agriculture and Forestry. (b) Including 2 in graduate studies in 1960-61 and 1964-65. (c) Home Economics, Physical Education, Law, Social Work, and Music.

Table 23b. Vancouver Island Students at UBC (All Years), 1960-1 and 1964-5

Faculty	1960-61				1964-65			
	Men		Women		Men		Women	
	1st	2nd+	1st	2nd+	1st	2nd+	1st	2nd+
Arts	11	68	4	52	6	130	3	79
Science	9	62	-	6	1	116	-	17
Applied Sciences (a)	19	122	-	-	15	133	-	-
Health and Medical (b)	6	21	2	27	9	31	2	20
Education	5	49	-	37	-	46	-	65
Commerce	3	37	1	1	10	28	-	1
All Others (c)	5	83	-	37	7	64	2	33
Total (d)	58	442	7	150	48	538	7	215

(a) Including Engineering, Agriculture, Forestry and Architecture.

(b) Including Medicine, Nursing, Dentistry, Pharmacy and Rehabilitation Medicine.

(c) Home Economics, Physical Education, Librarianship, Law, Social Work and Graduate studies. (d) The numbers in third and subsequent years were 304 men and 110 women in 1960-1, 414 men and 153 women in 1964-5.

Table 23c. Third-Year and Subsequent Year Students from Vancouver Island, UBC, 1960-1 and 1964-5

Faculty	1960-61		1964-65	
	Men	Women	Men	Women
Arts	45	43	108	60
Science	36	4	91	12
Applied Sciences (a)	68	-	71	-
Agriculture	9	-	21	2
Medicine, Pharmacy	9	5	19	5
Education	39	24	44	41
Commerce	24	1	22	1
Graduate Studies	46	7	-	-
All Others	28	26	38	32
Total	304	110	414	153

(a) Including 9 men in Architecture in 1960-61, 4 in 1964-65.

Table 24. Grade XIII Classes in the Survey Area, 1960-1965

a. Men

Districts	1960-1	1961-2	1962-3	1963-4	1964-5	5-year average
Nanaimo	54	35	32	47	33	40
Albernis	21	23	14	31	24	22
Cowichan	-	43	20	14	29	(26)
Courtenay	24	27	42	41	30	33
Campbell River	-	-	-	-	13	(13)
Survey Area	99	128	108	133	129	120

b. Women

Districts	1960-1	1961-2	1962-3	1963-4	1964-5	5-year average
Nanaimo	34	31	20	26	27	28
Albernis	20	11	23	8	20	16
Cowichan	-	9	10	10	17	(11)
Courtenay	12	19	33	39	20	25
Campbell River	-	-	-	-	11	(11)
Survey Area	66	70	86	83	95	80

Source: Special compilation, School District records.

Appendix C (Part I)

"DROP-OUT" AND "RETENTION" RATES: BRITISH COLUMBIA HIGH SCHOOLS

Growing concern with "drop-outs" i.e. the number of youngsters who leave high-school before finishing Grade XII (or in some contexts, Grade X), has focussed attention on this aspect of school enrolment. It is quite properly seen, however, as retention, from another point of view. In spite of the legitimate concern with drop-out, the major trend for half-a-century has been that increasing numbers pursue the higher grades year after year - in other words, "retention power" of the high-school has increased.

The fact remains that public school attendance is not compulsory after 16: both negative and positive influences begin to operate strongly on adolescents from Grade VIII or IX onwards. The negatives, particularly inability to cope with "academic" course work, resistance to school environment and discipline, and social and cultural handicaps, demand remedies. One of the responses is the complete reorganization of vocational options now built into British Columbia schools; but, as recent reports in Britain make very clear[1], welfare measures which penetrate directly to home and family conditions are also needed. On the other hand, there are "positives", including the possibilities of on-the-job training, or vocational instruction conducted elsewhere than in the schools, which must not be overestimated. None of these is more important than the Vocational School, an institution now very familiar in British Columbia and the rest of Canada, but with a much longer history of forty or fifty years in Britain and Western Europe. There can be little question that Vocational Schools are needed, and that they serve a distinct purpose in the range of post-high-school facilities. What is more at issue now is the type of instruction they should provide, and even more critically how their courses can be made available, promptly and effectively, for high-school students who need them as well as adults long separated from high-school instruction.

Accordingly, retention rates (the extent to which high-school pupils continue on from the earlier grades, and particularly Grade VIII) must not be interpreted too simply. "Abilities" alone (even if these were fully determinable in school) are not the sole reason for the characteristic fall-off in numbers as children proceed from the first years in primary school through the secondary grades. A typical set of figures are the following from the Chant Report incorporating estimates based on 1946-1958 experience: (table on following page).

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[1] Notably the Newsom Report", Half Our Future (1963), concerned with students of average ability; the "Crowther Report", Fifteen to Eighteen (1960), concerned with continued-education and work-study facilities; and a recent bulletin of the new Department of Education and Sciences, Education Under Social Handicap (Report 17, 1964).

Table 30. Retention Rates, Grades X-XII, British Columbia and Canada

(Based on averages for 1946-1958)

Grade	B.C.	Canada
Grade II	100	100
" III	99	98
" IV	98	95
" V	97	92
" VI	96	87
" VII	96	81
Grade VIII	95	72
" IX	90	63
" X	79	51
Grade XI	66	37
" XII	52	26
Source: Report of the Royal Commission on Education, British Columbia, 1960; p.48.		

According to these, only slightly more than a quarter of all the children in Grade II in Canada generally can expect to graduate at the Grade XII level, and 20 per cent or more are "lost" even around Grade VIII. These figures, which include Quebec, have improved very much in recent years. It is estimated for 1963 (most recent compilations of the Education Division of the Dominion Bureau of Statistics) that of all Grade II children in Canada, 46 per cent of the boys and 51 per cent of the girls enter the junior matriculation year: 92 and 96 per cent, respectively, complete elementary school. The indications are that British Columbia schools retain their superior record in this respect (but with important variations between the major urban centres, and the rural and frontier sections of the province, where drop-outs are by far the greatest).

For the present report, the importance of this kind of measurement is its relation to the "recruitment pool", or the "college potential" (assessed in Sections 6-8). To facilitate reference, available material is assembled here from a variety of sources. As will be seen, there is no standard method of estimating potential University enrolment. The Macdonald Report, for example, utilized four different procedures: the Division of Tests and Standards of the provincial Department of Education assesses past school enrolment statistics from all possible angles; and there still remains a necessity for some reconcilation. The fact is that there are other variables besides the statistical ones in this "equation". In particular, new facilities themselves increase college enrolments. The wise course is therefore to use all possible estimates as guides, but to plan for the future with a measure of flexibility.

From a variety of materials kindly supplied by the Division of Tests and Standards, it is possible to present the following valuable table:

Table 31. Educational Retention up to University Graduation, British Columbia

(Estimates for 1959-60 and 1963-4)

Stage	1959-60	1963-4
	P.C.	P.C.
1. Entering Grade XII	60	69-70
2. High-school graduation	40	45-47
3. Completing University Entrance	23	27-29
4. Entering University	15	20
5. Obtaining (bachelor's) degree	10	12

It should be noted that the percentages listed here use as base the number of pupils averaged for Grades II to VII, yielding figures somewhat lower than if they were based on Grade II alone, but nevertheless a very reasonable (and more stable) bench mark. These computations are tantamount to saying that of the children in elementary school, a little short of thirty per cent may currently expect to complete University entrance. A substantially larger number will complete Grade XII in one form or another (including repeating grades), and the new options should encourage more vocational program graduates.

The proportions of 20 per cent entering University, and only 12 per cent achieving a first degree, while registering distinct progress in only four or five years, are nevertheless much smaller than many people suppose. If only one out of five elementary school children enters University, what happens to the other four? No attempt can be made to answer this here, though one important qualification is in order. The proportion is much higher than one in five for boys, and correspondingly lower for girls (account is taken of this at several points in this report).

Table 32. Estimates of University Candidates in British Columbia, 1951-1975

Item	1951-2	1961-2	1965-6	1971-2
1. Grade XII enrolments, public high-schools (a)	5,572	12,700	16,500	20,100
2. High-school Graduates, U.P. (now Academic-technical program)	2,218	5,124	7,020	8,650
3. Total University enrolment (a)	5,871	14,803	(20,200) (24,000)	(24,900) (37,000)
4. University of British Columbia enrolment	5,555(*)	13,063	(13,400)	(17,600)
5. University of Victoria enrolment	316	1,740	(3,000)	(3,700)

(a) See text for explanation. *Included veterans on post-war benefits. In the above table actual figures are underlined. The estimates of Grade XII students are from the Chant Report, which having been compiled in 1959, could only give an estimate for 1961-2. The actual figure was 13,595.

It might seem that from here on, estimating college potential is a simple step. Thus for example, the records compiled by the Division of Tests and Standards show that the ratio of total university enrolment (not the same as university first-year entrants) has borne a remarkably consistent ratio of 144 per cent to U.P. graduates (based on two-year averages) over the period 1957-1964. Relying on this fact yields much lower proportions than those adopted in the Macdonald Report: around 24,000 for 1965 and 37,000 for 1971. The Chant Report, not able to take cognizance of something of a "plateau" in age-distribution which has now been registered in B.C., estimated 24,900 for 1965 and as much as 34,800 for 1971. In view of these variations, it may be helpful, for reference, to summarize the methods utilized for the figures from which the Macdonald Report had to make a choice (Table 33). Accordingly in Table 32 above, which is utilized as the working table for the present report, 20,200 and 24,000 are both shown, to indicate the range of variation which must be allowed for, even in looking ahead two years or so from 1965.

The projections for UBC and University of Victoria enrolment are from the Macdonald Report. Actual figures for UBC (excluding post-graduates and summer school) were 14,182 in the 1964-5 session, already nearly one thousand greater than the estimate for 1965-6. Obviously, the staple ratio of 144 per cent referred to above can be upset if there is a change in the disposition of both parents and students to complete Grade XII and seek post-high-school tuition. At the moment of writing, Simon Fraser University, the newest factor in the situation, is anticipating an enrolment of more than 2,000; and Vancouver City College, widening its scope greatly from its previous existence as an adult's institution offering Grade XII and Grade XIII courses, anticipates 2,500 day students, and possibly 12,000 for its night classes.' Nor must it be forgotten that the B.C. Institute of Technology, a new and very special unit in the provinces' collegiate resources, had some 2,000 applicants for its 750 places in its first year.

Table 33. University and College Enrolment Projections, British Columbia

Source	Estimates for		Method
	1965-6	1971-2	
1. Chant Report (1960)	24,900	34,800	Projection of college enrolment in relation to Grade XII, B.C.
2. E.F. Sheffield (article written 1961)	23,000	39,200	Projection of university enrolment trends, equating B.C. to rest of Canada.
3. R.J. Rowan and J. Halpern, report written 1962.	24,300	37,000	Projected rate of increase (0.8 per cent per year) of proportion of 18-21 age group in college.
4. J.D. Chapman and W.G. Hardwick, Macdonald Report, Appendix E.	21,900(low) 22,700(high)	34,000(low) 40,000(high)	Regional computation of Grade VII in 1959-60 and Grade II in 1959-60 projected with allowance for in-migration and Grade XIII's.

Some Overall Canadian Figures.

To complete this compendium of relevant but unfortunately complex and difficult figures, it is helpful to cite the following computation, recently completed for Canada as a whole by the Education Division of the Bureau of Statistics. Based on 1963 data, this takes the retention rate from the standard Grade II not only up to university entrance but to types of university graduation. It also points up the important differences between the educational careers, at least in average terms, between men and women, already referred to.

Table 34. Education Retention, Canada, 1963

Stage	Boys	Girls
Grade II	100	100
Grade VI	98	98
Enter last year of elementary school	92	96
Enter first year of secondary school	88	89
Enter Junior Matriculation year	46	51
Enter Senior Matriculation year	21	20
Enter University	18	8
Graduate with bachelor's degree (a)	13	6

(a) Master's degree, 2.0 (men) 0.6 (women); doctorate, 0.4 (men) 0.05 (women).

Unfortunately, because of differences in school systems and terminology, there are difficulties in equating this directly to B.C., though the general tenor is apparent.

Some inferences can be drawn as to progress since 1959 since a somewhat simpler computation was made for that year for students of both sexes as a group. (Canada Year Book, 1961). The base for this earlier figure is the average elementary school enrolment. (Grades II to VII). Seventy per cent of this group entered Grade VIII, 33 per cent completed junior matriculation and 15 per cent senior matriculation. The proportion entering college was 9.5, and graduating with a first degree 6.0 per cent. Making due allowance for the considerable summary involved in such figures, the evidence is that, in the last five years alone, there have been at least a fifty per cent increase in the numbers entering University. The number of colleges and Universities themselves have, of course, increased in Canada in this period to an extent without any previous precedent.

APPENDIX D. SURVEY QUESTIONNAIRES

a. High School Leavers

b. Regional Vocational Needs

1. Employers

2. Trade Unions

Vancouver Island Regional College Survey: Q2

a. INTERESTS OF HIGH SCHOOL LEAVERS

......................High School Grade XII Boys.......Girls.......

This information will be treated anonymously, i.e., it is for statistical tabulations only. No names will be used: you do not have to put your name on the sheet. But please answer all the questions as carefully as you can. We need the information so that we can plan wisely for a Regional College for your area.

1. In high school, you have been taking courses which are chiefly (check one)
   ....(1) academic
   ....(2) commercial
   ....(3) vocational
   ....(4) general education
2. What are your plans as to what to do after high school? Would you say they are (check one)
   ....(1) quite definite
   ....(2) only partly thought about
   ....(3) quite indefinite
3. Have you discussed your plans with your parents? Yes... No...
4. Would you say they approve....or have doubts....
5. Do you feel you need further vocational (career) counselling? Yes... No...
6. Do you feel you need further educational (studies) counselling? Yes... No...
7. (Girls only answer this question)
   If you should get married within the next few years, would you want (check one)
   ....(1) to give up your job and be a full-time homemaker
   ....(2) to carry on with training and a career
   ....(3) to earn what you can in temporary work, but not plan a career
8. From the next pages check the field of study which best describes the kind of occupation you would like to pursue. You may indicate up to three in order of choice (1,2,3) if you wish. (If none of these fits your plans, describe your career objectives at the end of the lists, section F).

A. ARTS, AND RELATED STUDIES

...(1) Literature, writing, journalism
...(2) History
...(3) Geography
...(4) Economics
...(5) Sociology
...(6) Anthropology
...(7) Political science
...(8) Public administration
...(9) Social studies
..(10) Theology
..(11) Languages
..(12) International studies
..(13) Music
..(14) Art
..(15) Other arts (theatre, ballet, etc.)
..(16) Other (give details)

C. TECHNICAL PROGRAMS

..(41) Broadcasting (radio, TV)
..(42) Draftsmanship (architectural)
..(43) Draftsmanship (engineering)
..(44) Surveying technology
..(45) Structural technology
..(46) Mechanical (industrial machinery) technology
..(47) Automotive technology
..(48) Aeronautics technology
..(49) Electronics technology
..(50) Data processing, computers
..(51) Forestry technology
..(52) Forest products utilization (including pulp, paper) technology
..(53) Minerals, gas, oil technology
..(54) Chemical and metallurgy technology
..(55) Lab. technician, medical
..(56) Lab. technician, chemistry
..(57) Lab. technician (other)
..(58) Dental technician
..(59) Physiotherapy (rehabilitation)
..(60) Home economics

F. VOCATIONAL TRAINING

.(201) Building trades
.(202) Printing trades
.(203) Other (give details)

G. EMPLOYMENT

.(220) On-the-job training (give details)
.(221) Family farm
.(222) Family store
.(223) Other work (give details)

B. SCIENCES, APPLIED SCIENCES

..(21) Mathematics
..(22) Chemistry
..(23) Physics
..(24) Biology
..(25) Biochemistry
..(26) Geology
..(27) Engineering (civil)
..(28) Engineering (mechanical)
..(29) Engineering (electrical)
..(30) Metallurgy
..(31) Forestry
..(32) Agriculture
..(33) Architecture

D. PROFESSIONS, PUBLIC SERVICE

..(81) Law
..(82) Medicine
..(83) Public health
..(84) Dentistry
..(85) Nursing
..(86) Pharmacy
..(87) Education (teaching)
..(88) Social work
..(89) Recreation, sports
..(90) Community leadership
..(91) Corrections, criminology
..(92) Civil service (government)
..(93) International service
..(94) Defence services
..(95) Social surveys and research
..(96) Town planning, regional planning

E. BUSINESS, COMMERCE, FINANCE

.(101) Accounting
.(102) Secretarial studies
.(103) Business management
.(104) Personnel work, industrial relations
.(105) Hotel, restaurant management
.(106) Tourist, travel business
.(107) Retailing, salesmanship
.(108) Advertising, marketing
.(109) Credit management
.(110) Business research
.(111) Commercial art
.(112) Insurance
.(113) Banking, investment
.(114) Real estate

H. OTHER.

Explain here if you have occupational objectives not suitably described by any of the above:

....

....

BACKGROUND INFORMATION

9. Check which best describes your father's present occupation, in column 1. (Note item 19). If your father is retired, check his main occupation when he was working, in column 2. If your father is at present unemployed, check his usual occupation in column 3.

Occupation	1	2	3
1. Professional (e.g. engineer, teacher, doctor)			
2. Technical (e.g. industrial technician, laboratory man, technician in Air Force)			
3. Managerial (e.g. sales manager, branch manager)			
4. Store proprietor or owner			
5. Clerical worker			
6. Commercial (wholesaler, commercial traveller, insurance agent, sales agent)			
7. Salesman (retail store)			
8. Foreman (industrial plant, mine, logging company)			
9. Skilled craftsman, (machinist, carpenter, baker, electrician, mechanic, tailor)			
10. Officer, sergeant, captain, etc. in army, navy, airforce, merchant marine			
11. Factory operative (manufacturing plant, pulp and paper mill)			
12. Tractor operator, bus driver, truck driver			
13. Logging: machine operator in the woods			
14. Logging: manual worker in the woods			
15. Farmer			
16. Fisherman			
17. Miner			
18. Labourer (construction, farm, etc.)			

19. If in doubt, write your father's occupation here..........................

10. If your father is not alive, or not living in your house, and your mother supports your family, what is her main occupation:

....(1) Teacher
....(2) Clerical Worker
....(3) Nurse
....(4) Store clerk
....(5) Housekeeper
....(6) Factory worker
....(7) Waitress
....(8) Domestic service
....(9) Lives on pension, superannuation, etc.
(10) Other (give details).............................

11. How many persons are there in your family living at home, and dependent on your family income (include yourself, parents, relatives):

....(1) Three or less
....(2) Four
....(3) Five
....(4) Six
....(5) More than 6

12. How many brothers under 5? ....0....1....2....3

13. How many sisters under 5? ....0....1....2....3

14. How many brothers 5-15? ....0....1....2....3

15. How many sisters 5-15? ....0....1....2....3

16. In which bracket, approximately, is your family income?

....(1) Under $2000 a year
....(2) Around $3000 a year
....(3) Around $4000 a year
....(4) Around $5000 a year
....(5) Around $6000 a year
....(6) Around $7200 a year
....(7) More than $7200 a year

17. Do you think your family could afford $500 a year, to continue your education for the next two years? Yes... No...

18. $1000 a year? Yes... No...

19. Would you have to work in summer, or part-time, to help finance further education? Yes... No...

20. Do you use the School Library: very much...occasionally...not at all...

21. Do you have a Public Library, or access to the B.C. Travelling Library, in your town? Yes... No...

22. If yes, do you use it: very much...occasionally...not at all...

23. Can you get much of your books and light reading from your home? Yes... No...

24. Which of the following best describes the kind of magazines, periodicals, and paper-backs you like to read (check in either column a or b, according to which is correct).

Kind	a. Regularly	b. Occasionally
(1) Current affairs, news		
(2) Popular science		
(3) Science fiction		
(4) Biography, history		
(5) Arts (music, art, theatre, etc.)		
(6) Outdoor interests		
(7) Sports, athletics, games		
(8) Small pocket magazines ("Digest" type)		
(9) Detective stories		
(10) Romantic fiction		
(11) Travel, international interests		
(12) Women's interest magazines		
(13) Special hobbies (e.g. cars, photography, stamps)		

(14) Other (which?)...

(15) Which Canadian magazines, if any, do you read at all regularly?.............

PLANS AND PREFERENCES:

25. If you complete Grade XII satisfactorily, which of the following would be your preference, if all alternatives are available:

....(1) to go to U.B.C.
....(2) to go to the University of Victoria
....(3) to go to Simon Fraser
....(4) to go to a university elsewhere
....(5) to get employment for money or experience
....(6) to go to Grade XIII
....(7) to go to a Regional or Junior College in B.C.
....(8) to go to a Junior College in the United States
....(9) to go to an Institute of Technology
...(10) to go to a Business School
...(11) to go to a Vocational School
...(12) to go to Arts or Music School
...(13) to join Defence Services
...(14) Others (please explain)

26. If you are not going to College or University next year, which reasons are true for you:

....(1) I don't need any more schooling
....(2) I prefer to work
....(3) I am needed at home
....(4) I can enter my father's business
....(5) My family can't afford it
....(6) Trade courses would be better for me
....(7) I like hand work and crafts better than desk and paper work
....(8) Grades are not high enough
....(9) Getting married

27. If you are undecided about going to College or University next year, which reasons are true for you:

....(1) Don't have enough money
....(2) Want more experience before considering a career
....(3) No college near enough to my home
....(4) Parents want me to go, but I don't want to go
....(5) I could only go if I get scholarships
....(6) I have doubts about my grades
....(7) Don't know what is best occupation for me
....(8) Reason other than these (please explain)

28. If you can go to College or University, would you:

....(1) prefer to commute from home, if possible
....(2) prefer to live in a student residence, if possible
....(3) prefer to board in the college town, if possible

28a. If your answer to 28 is yes, would you be willing to commute by bus or car
....up to 10 miles (each way); ....10-25 miles; ....more than 25 miles (check one)

29. The subjects you have liked best in High School (regardless of your grades) are (check up to three in order of choice, 1,2,3, if you wish; or pick only one or two if you prefer)

....(1) English
....(2) History; geography; social studies
....(3) Languages
....(4) Music, drama, art
....(6) Mathematics
....(7) Sciences
....(8) Industrial arts; home economics
....(9) Business courses
...(10) Other (which?)

30. Your grades (in the last three years) have been

....(1) Mostly A's
....(2) More A's than B's
....(3) Mostly B's
....(4) More B's than C's
....(5) Mostly C's
....(6) C's and D's
....(7) Mostly D's

Vancouver Island Regional College Survey: E2

b(1) REGIONAL VOCATIONAL NEEDS: EMPLOYERS SURVEY

Company, Plant, Office.......................... Location...........................

....

1. How long have you been established in this area..............................years.

2. Main business or products...

....

3. What is the (average, or approximate) number of full-time employees in the year 1964, by categories:

Category	Males	Females	Total	Remarks([1])
Supervisory				
Office, clerical				
Sales (wholesale, agents, etc.)				
Salestaff (retail)				
Maintenance				
Operating				
Total				

([1]) If it is easier or more appropriate to give figures, using your own occupational categories, please do so. Or please indicate if special explanations apply to the categories suggested.

4. Can you supply comparable figures for five years ago, and ten years ago?

Category	1954			1959			([2])
	M.	F.	Total	M.	F.	Total	
Supervisory							
Office, clerical							
Sales (wholesale, agents, etc.)							
Salestaff (retail)							
Maintenance							
Operating							
Total							

([2]) If special explanations are needed, please indicate on back of this form.

5. In the next five years (say, 1965-1970), do you anticipate that your workforce will be

very much larger.................... a little larger...................
about the same...................... smaller..............................

6. Could you indicate (if necessary, verbally to the interviewer) (a) which occupations are most likely to be affected, (b) for what reasons (technology, change of process, etc.), and (c) whether retraining, upgrading, or new recruiting is most appropriate to meet the needs.

7. What trades, skills, or occupations in your establishment have you recruited through Vocational School(s) in the last three years:

Occupations	Explanatory Remarks
....	....
....	....
....	....

8. What occupations do you require in your operations that call for technical skill above that of tradesman, artisan or skilled mechanic, but not necessarily requiring a university degree (engineer, B.A., B. Com., professional chemist, etc.).[1]

Occupation	Explanatory Remarks
....	....
....	....
....	....
....	....

9. Has your establishment experienced a need for "upgrading" of staff (whether vocationally or educationally, or both) in the last five years? Could you indicate (a) occupational or area-of-work examples and (b) means employed to accomplish this:

Occupation or Area of Work	How Dealt with
....	....
....	....
....	....

10. What particular skills or occupations have you had to recruit from abroad (Britain, Europe, or United States) in the last ten years? Could you indicate details of their special qualifications or type of training?

Occupations	Types of Qualifications
....	....
....	....
....	....

11. In the event of the establishment of a Regional College for Vancouver Island, are there any specially-designed types of courses which you would like to see developed, which would contribute to the Island's productive capacity, whether in your plant or elsewhere.

a. Short courses (few weeks to one term)

....

....

b. One-year courses (two, or possibly three terms)

....

....

c. Two-year courses (intended mainly to be complete within this period)

....

....

d. Two-year courses at the Regional College, with properly worked-out transfer arrangements to either a University or an Institute of technology

....

....

12. If you have any other comments or suggestions about the need or purposes of a Regional College for the Island, please pass them on to the interviewer.

---

[1] Examples are laboratory technicians, draughtsmen, certain kinds of supervisory staff, computer-program operators, commercial artists, etc. Please indicate category as in questions 3, 4, on preceding page; also whether men or women are preferred, or there is no preference.

Vancouver Island Regional College Survey: E3

b(2) REGIONAL VOCATIONAL NEEDS: TRADE UNIONS SURVEY

Union....................................... Areas or Location......................
....

I. Coverage

1. What occupations, trades, skills, etc. are covered by your Union (as at 1965: changes are dealt with below).

Trades	Usual period of apprenticeship	Remarks
....	....	....
....	....	....
....	....	....
....	....	....
....	....	....

II. Changes

2. What is your experience of the demand for these trades in the last five years:

Trade	Increase	Stationary	Decline
....			
....			
....			
....			
....			

3. What new trades or developments of skills, etc. have been important in the last ten years:

(a)..
(b)..
(c)..

4. Which jobs of importance to your Union have been most affected by changes in technical processes, automation, etc., in the last ten years:

Job or Process	Nature of Change
....	....
....	....
....	....
....	....
....	....

5. Can you be at all specific about likely technical, vocational, or educational changes affecting your trades in the next ten years (1965-1975)?

....

....

....

III. Current Developments, Training and Education

6. Has your Union cooperated, in the last 3 years, in courses of any kind developed through School Board, or other Evening Classes?

Occupation, courses, etc.	Duration of course	Enrolment (average for one year)
....		
....		
....		

7. Has your Union cooperated, in the last 3 years, in courses of any kind given at the Vocational School:

Occupation, courses, etc.	Duration of course	Enrolment (average for one year)
....		
....		

8. Are there any courses now being given (or projected) at Burnaby Technical Institute, or in Vancouver, in which your Union is interested:

Course	Explanatory Remarks
....	....
....	....
....	....

IV. Regional College

9. What courses in technical instruction (including any of the above) might you be interested in helping to organize in a Regional College for the Island, if this is established within the next two years?

....

....

10. What courses in general education might you be interested in helping to organize in a Regional College for the Island, if this is established within the next two years?

....

....

11. What courses relating to trade union affairs, community service, public affairs, or other related subject, would your membership like to see get attention in a Regional College:

....

....

N.B. If you have any other comments or suggestions on the nature and purposes of a Regional College for the Island, please indicate if necessary, on the back of this form. Your interest is welcomed and appreciated!

Appendix E (Part II). SOCIO-ECONOMIC BACKGROUND

No matter how much one may comb the standard statistics (notably the Census) and supplement these by specific studies (the High School Survey and the Vocational Needs Survey in the present survey), there are certain built-in obstacles to an assessment of the characteristics of the potential Regional College student population. (1) Census statistics of both the occupational and the industrial classification of the working population can be secured for Vancouver Island (as a separate census enumeration district) but not for the Survey Area; although, since the Survey Area includes virtually all of Vancouver Island except Greater Victoria, a comparison of Vancouver Island figures with Victoria figures will sometimes yield a few indications. (2) A survey of the Grade XII graduating classes is extremely valuable, and there is everything to be said for continuing such surveys. But only a proportion of the high-school graduates (even if estimates of the proportion are possible) will be candidates for the college, and there are others who will still go to universities, B.C.I.T., etc. (3) A highly important proportion of the college student body will be older adults, men and women, many of them part-time students, for whom only the most tenuous information is available at present.

Accordingly, the various statistics assembled in this part of the Appendix have only limited uses. They help to fill in further details of the Island as a region, initially discussed in Part I. They supply a few illustrative figures which are useful at certain points in the text, the main tables being retained here for those who wish to consult the source. And, finally, it is hoped they may be helpful for comparison or perspective purposes when specific figures become available later as the College develops its own records.

To facilitate reference, the material is divided into three sets (1) statistics relating primarily to Vancouver Island (Tables 10-14); (2) statistics relating to the Survey Area, most of this derived from the High School Survey (Tables 15-20); (3) information on students, also derived from the last-mentioned source, which has particular relevance to curriculum and college planning (Tables 21-27).

Table 10. Industrial Pursuits of Employed Population of Total Region

(Vancouver Island, 1961)

Industrial Area	Total Employed	P.C. Distribution	Proportion of Males
Agriculture	5,022	15.9	84.4
Forestry	1,222	3.9	98.0
Mining	355	1.1	98.0
Fishing, trapping	12	-	-
Construction	1,941	6.7	98.1
Manufacturing	4,703	14.9	87.2
Transportation	2,614	8.3	88.1
Public administration, defence	1,660	5.3	80.3
Retail trade	3,852	12.2	65.1
Other trade	2,071	6.6	77.5
Finance, insurance, real estate	884	2.8	58.7
Community and business service	3,703	11.7	45.3
Personal service	3,592	11.1	34.6
Total	31,531	100	74.0

Source: Census 1961, Bulletin 3.2-5 (1964). The material is rearranged in various ways to bring out major features, but without altering any of the constituent figures.

Table 11. **Industrial Distribution of the Male Labour Force in the Total Region, distinguished by Type of Area**

(Vancouver Island, 1961)

Industrial Area	(a) Urban	(b) Farm	(c) Non-farm rural	Percentages (a)	(b)	(c)
1. Agriculture	578	2,747	915	5.3	58.4	13.2
2. Forestry	340	153	705	3.1	3.3	10.2
3. Mining	119	28	201	1.1	0.6	2.9
4. Fishing, trapping	6	-	6	-	-	-
5. Construction	1,102	210	592	10.1	4.5	8.6
6. Manufacturing	1,870	575	1,662	17.2	12.2	24.0
7. Transportation	1,352	246	716	12.4	5.2	10.3
8. Public administration, defence	912	122	299	8.4	2.6	4.3
9. Retail trade	1,670	195	643	15.4	4.1	9.3
10. Other trade	980	228	398	9.0	4.8	5.7
11. Finance, insurance, real estate	384	32	103	3.5	0.6	1.5
12. Community and business service	922	126	431	8.4	2.6	6.2
13. Personal service	633	43	251	5.9	0.9	3.6
Total Male Workforce	11,427	4,724	7,132	100	100	100

Source: As in Table 10. "Non-farm rural" includes some suburban areas as well as frontier sections of the Island.

Table 12. **Industrial Distribution of Women in the Regional Labour Force, distinguished by type of area**

(Vancouver Island, 1961)

Industrial Area	(a) Urban	(b) Farm	(c) Rural non-farm	Total
1. Agriculture	62	545	175	782
2-4. Forestry, mining, etc.(a)	10	2	19	31
5. Construction	28	1	8	37
6. Manufacturing	347	77	172	596
7. Communication, utilities, transportation	210	23	79	312
8. Public administration, defence services	231	37	59	327
9. Retail trade	905	121	318	1,344
10. Other trade	231	101	133	465
11. Finance, insurance, real estate	255	35	75	365
12. Community and business service	1,363	917	215	2,024
13. Personal service	1,129	30	494	1,753
Total	4,911	1,294	2,043	8,248

Source: As in Table 10. Rural non-farm includes some suburban areas as well as frontier sections of the Island.

(a) No women workers in fishing or trapping; very small numbers in mining, quarrying.

Table 13. Income Groups among Wage and Salary Earners

(Vancouver Island and Comparative Areas, 1961)

Earnings Groups	Vancouver Island	British Columbia	City of Victoria
Males			
$6,000 and over	14.5	15.0	9.8
$4,000-6,000	37.8	35.0	33.7
$3,000-4,000	18.8	18.9	22.3
$2,000-3,000	9.5	10.3	11.6
$1,000-2,000	7.8	8.1	8.3
Under $1,000	7.2	8.2	8.6
Females			
$6,000 and over	1.3	1.5	0.9
$4,000-6,000	7.0	7.6	6.2
$3,000-4,000	14.1	16.8	13.8
$2,000-3,000	25.0	24.6	27.1
$1,000-2,000	20.2	19.0	20.1
Under $1,000	26.5	24.9	23.6
Average Earnings			
Males	$4,044	$4,044	$3,698
Females	$1,992	$2,096	$2,044
Number of Wage and Salary Earners			
Males	65,146	358,424	11,799
Females	23,491	141,632	7,021
Total	88,637	500,056	18,820

Source: Adapted from appropriate bulletins, 1961 Census.

Table 14.a,b Occupational Distribution of the Regional Working Population

(Vancouver Island, Comparative Areas, 1961)

(a) Males

Occupational Group	Urban			Rural		
	V.I.	B.C.	Canada	V.I.	B.C.	Canada
Managerial	10.5	13.1	12.1	8.6	8.4	5.7
Professional, technical	8.5	9.2	9.5	5.7	4.4	3.0
Clerical	5.6	6.9	8.9	2.6	2.5	2.2
Sales	5.9	7.4	7.0	3.1	2.8	2.2
Service, recreation	22.0	10.8	9.7	10.6	6.9	5.5
Craftsmen, construction, production workers	28.2	30.9	32.2	30.5	30.5	20.4
Transport, communications	7.1	8.3	8.2	8.0	7.6	6.0
Loggers, fishermen, etc.	3.2	2.3	0.7	13.9	9.2	6.6
Miners and related workers	0.2	0.7	1.3	1.7	2.3	1.5
Farmers, farm workers	1.7	1.6	1.4	6.4	14.5	38.1
Labourers	5.9	5.9	6.2	6.1	7.9	6.3
Total Males	100	100	100	100	100	100

(b) Females

Occupation Group	Urban			Rural		
	V.I.	B.C.	Canada	V.I.	B.C.	Canada
Managerial	4.0	4.0	3.0	8.0	7.0	4.5
Professional, technical	16.3	15.1	15.1	16.2	14.0	16.5
Clerical	31.8	34.1	32.5	23.0	19.9	12.3
Sales	12.5	10.8	8.6	10.6	8.9	7.0
Service, recreation	25.2	23.3	22.2	26.9	26.9	23.5
Production workers, etc.	3.4	6.2	12.6	2.8	4.8	7.3
Communications, transport	2.2	2.2	2.1	3.5	2.6	2.2
Extractive, (logging, farming, etc.)	0.4	0.3	0.2	4.3	10.6	22.4
Unskilled	0.8	0.9	1.2	1.1	1.4	1.0
Total Females	100	100	100	100	100	100

Source: Adapted from appropriate Census Bulletins, 1961 Census.

Appendix E(2)

Table 15. Grade XII Enrolment in the Survey Area, distinguishing sexes, and main Programs

(Revised figures 1965-6 and 1966-7 estimates)

District	Boys		Girls		Acad.-Tech.		Others	
	1965-6	1966-7	1965-6	1966-7	1965-6	1966-7	1965-6	1966-7
Nanaimo	201	216	184	203	258	259	127	160
Alberni	137	155	160	164	172	212	125	107
Ladysmith	52	58	47	63	62	42	37	39
Qualicum	42	46	29	46	42	53	29	39
Cowichan	87	107	86	107	104	69	108	106
Lake Cowichan	55	40	39	20	55	29	39	31
Main Campus Area	574	622	545	603	693	664	465	482
Courtenay	119	102	140	140	171	150	80	130
Campbell River	94	120	87	110	111	145	70	90
Northern Areas	13	36	17	27	30	-	63	-
Branch Campus Area	226	258	244	277	312	295	213	220
Total	800	880	789	880	1,005	959	678	702

Source: data specially supplied by cooperating School Boards.

Table 16. The Financial Base: Assessments and Budget Dimensions, School Districts of the Survey Area

(All figures to nearest $000)

School District	Assessed valuation, School Districts		Schools levy (1965)	Schools expenditure (1965)
	1965	Estimated 1966		
	$000	$000	$000	$000
Nanaimo	$99,999	$102,000	$2,508	$3,166
Alberni	87,992	89,500	2,000	2,605
Ladysmith	20,087	21,000	570	1,070
Qualicum	15,370	16,532	430	670
Cowichan	54,753	55,500	1,413	2,205
Lake Cowichan	36,302	37,000	698	743
Courtenay	31,173	33,099	878	2,011
Campbell River	61,106	73,877	1,237	1,190
Northern Areas	26,968	30,000	635	1,036
Total	$433,750	$458,508	$10,369	$14,696

Source: Data supplied by School Boards. (There may be some divergence from future official figures because of differences in fiscal year).

Table 17. Occupational Classes of Parents, and Distribution of Family Incomes, High School Leavers

(Survey Area: All Grade XII Students; 1965)

Occupational Category	Under $2,000	$3,000	$4,000	$5,000	$6,000	$7,200	More than $7,200	Total
Professional	-	2	5	10	9	7	47	80
Technical	-	1	7	7	6	3	3	27
Managerial	-	2	5	17	10	12	32	73
Store proprietor	-	4	5	9	15	7	17	57
Clerical	2	5	7	4	5	4	4	31
Commercial	1	2	9	5	5	9	8	41
Salesman	-	-	2	4	4	-	1	11
Foreman	-	1	2	11	30	15	36	95
Skilled	2	7	27	55	50	17	28	186
Responsibie	-	4	7	22	12	7	14	64
Factory worker	1	8	17	38	27	10	5	106
Driver, equipment operator	1	4	15	18	10	-	1	49
Logger (equipment operator)	1	2	10	13	14	4	9	53
Logger (woods)	4	2	4	11	4	9	8	42
Farmer	2	9	3	5	3	-	4	26
Fisherman	-	5	2	3	4	4	3	21
Miner	-	1	-	-	-	-	-	1
Labourer	6	8	27	12	8	5	3	69
Uncertain (a)	33	26	15	20	10	3	2	104
Total (b)	53	93	169	264	226	116	225	1,146

(a) Undoubtedly includes some families in which father is unemployed or deceased. This information was obtained in the survey, but without sufficient indication of previous occupation.

(b) 91 students did not answer the income question.

Table 18. Modal Incomes of Occupational Categories

(Parents of Grade XII Students; 1965)

Occupational Class	Modal Income(s)
Managerial	over $7,200
Professional	over $7,200
Commercial	(a) $4,000 (b) $7,000
Store proprietors	(a) 6,000 over $7,200
Foremen, supervisors	(a) over $7,200 (b) $6,000
Technicians	(a) $4,000 (b) $5,000 (c) $6,000
Skilled craftsmen	(a) $5,000 (b) $6,000
Salesmen	(a) $5,000 (b) $6,000
Officers, services, etc.	$5,000
Factory operatives	$5,000
Divers, equipment operators	$5,000
Logging (equipment operators)	$5,600
Logging (woods)	(a) $5,000 (b) $7,000
Fishermen	(a) $3,000 (b) $6,500
Farmers	(a) $3,000 (b) $5,000
Labourers	$4,000
Unemployed, deceased, etc.	$ under $2,000
All Parents	(a) $5,000 (b) $6,000

Source: Supplementary information from records of the High School Survey.

(a), (b) etc. indicates bimodal or trimodal distribution.

Table 19a. Income Distribution and Family Size: Totals

(Survey Area; Grade XII Students; 1965)

a. Boys

Income	Number of persons in family						Total
	2-3	4	5	6	7+	N.A.	
Under $2,000	13	1	1	1	2	1	19
Around $3,000	19	11	4	2	5	-	41
" $4,000	18	20	15	15	5	-	73
" $5,000	37	36	23	13	13	1	123
" $6,000	34	33	26	11	9	1	114
" $7,200	15	18	11	7	6	-	57
More than $7,200	27	36	23	14	21	3	124
Not answered	10	10	6	4	3	2	35
Total	173	165	109	67	64	8	586

b. Girls

Income	Number of persons in family						Total
	2-3	4	5	6	7+	N.A.	
Under $2,000	16	8	4	1	5	-	34
Around $3,000	15	14	4	5	13	-	51
" $4,000	22	25	23	9	16	1	96
" $5,000	29	43	35	19	15	-	141
" $6,000	27	35	21	12	17	-	112
" $7,200	14	18	12	12	3	-	59
More than $7,200	18	26	25	23	8	-	101
Not answered	15	17	11	7	6	1	56
Total	156	186	135	88	83	2	650

Table 19b. Income Distribution and Family Size: Percentage Distribution

(Survey Area: Grade XII Students; 1965)

Income	Boys	Girls	Total (a)
Under $2,000	3.2	5.2	4.7
Around $3,000	7.0	7.9	8.0
" $4,000	12.5	14.8	14.7
" $5,000	21.0	21.7	23.1
" $6,000	19.4	17.2	19.7
" $7,200	9.7	9.1	10.1
More than $7,200	21.2	15.5	19.7
Not answered	6.0	8.6	-
Total	100	100	100

(a) Both sexes, excluding questionnaires (7.3 per cent) in which the question on family income was not answered.

Family Size	Boys	Girls	Total (a)
2-3 persons	29.5	24.0	26.8
4 persons	28.2	28.6	28.5
5 persons	18.6	20.8	20.0
6 persons	11.4	13.5	12.6
7 or more	10.9	12.8	12.1
Not answered	1.4	0.3	-
Total	100	100	100

(a) Both sexes, excluding 10 questionnaires in which the question on family size was not answered.

Table 20. Distribution of Family Sizes

(Survey Area; Grade XII Students; 1965)

Size of Family (a)	Boys		Girls	
	Acad.	Other	Acad.	Other
3 persons or less	114	59	92	64
4 persons	113	52	124	62
5 persons	73	36	96	39
6 persons	50	17	49	39
More than 6	48	16	43	40
Not answered	6	2	1	1
Total	404	182	405	245

Size of Family	All Students				Total
	Acad.	Other	Acad.	Other	
3 persons or less	206	123	25.6	28.7	26.7
4 persons	237	114	29.3	26.7	28.4
5 persons	169	75	20.9	17.5	19.7
6 persons	99	56	12.2	13.1	12.5
More than 6	91	56	11.2	13.1	11.9
Not answered	7	3	0.5	0.9	0.8
Total	809	427	100	100	100

(a) Persons in the family living at home and dependent on the family income, including the student, parents and relatives.

Appendix E(3)

Table 21. Distribution of Grade XII Students, by Grades and Programs

(a) Boys and Girls

Grades[1]	Acad.	Comm.	Voc.	General	Total
Boys					
Mostly A's	8	-	-	-	8
More A's than B's	7	-	-	-	7
Mostly B's	42	1	1	1	45
More B's than C's	77	5	2	12	96
Mostly C's	237	22	34	85	378
C and D	32	-	3	13	48
Mostly D's	1	1	0	2	4
Total Boys	404	29	40	113	586
Girls					
Mostly A's	10	-	-	-	10
More A's than B's	19	1	-	-	20
Mostly B's	69	9	-	4	82
More B's than C's	101	26	0	7	134
Mostly C's	187	117	1	65	370
C and D	19	11	-	3	33
Mostly D's	-	-	-	1	1
Total Girls	405	164	1	80	650

[1] In the questionnaires, B was interpreted as "mostly B's", B- as "more than C's", etc.

(b) Summary: Academic and Other Programs

Grades (a)	Boys		Girls	
	Acad.	Other	Acad.	Other
A and A-	15	-	29	1
B	42	3	69	13
B-	77	19	101	33
C	237	141	187	183
C-	32	16	19	14
D	1	3	-	1
Total	404	182	405	245

(c) Summary: P.C. Distribution for All Students

Grades (a)	Acad.	Comm.	Voc.	G.P.	Total
A	2.2	-	-	-	1.5
A-	3.2	0.5			2.2
B	13.8	5.2	2.4	2.7	10.3
B-	21.7	15.7	4.9	10.1	18.3
C	52.6	72.2	85.4	77.7	60.7
C-	6.3	5.7	7.3	8.0	6.6
D	0.4	0.6	-	1.5	0.4
Total	100	100	100	100	100

Table 22. Career Choices of Students in Relation to Parental Occupation

(a) Boys

Career Area	Occupational Class of Father					Total
	I	II	III	IV	V	
A. Arts	16	10	17	6	8	57
B. Sciences, applied sciences	25	12	39	12	14	102
C1. Law, medicine	11	3	7	5	1	27
C2. Education (teaching)	10	6	10	3	2	31
C3. Public services, welfare	3	8	13	1	7	32
D. Business	9	11	15	6	5	46
E. Technical	22	23	60	29	19	153
F. Trades and other	7	7	16	8	5	43
Total	103	80	177	70	61	491

(b) Girls

Career Area	Occupational Class of Father					Total
	I	II	III	IV	V	
A. Arts	20	2	21	11	5	59
B. Sciences	9	-	6	2	-	17
C1. Nursing	20	10	38	23	12	103
C2. Teaching	22	9	29	6	9	75
C3. Public services, welfare	8	1	10	4	1	24
D1. Secretarial	20	5	37	19	22	103
D2. Other business	13	3	19	13	7	55
E. Technical	26	4	30	11	7	78
F. Trades, and other	3	4	8	4	3	22
Total	141	38	198	93	66	536

Table 23. Career Choices of High-School Leavers, and Employment Status of Male Parents

(Survey Area, 1965)

Career Area favoured by Student	Fathers				Total
	Working	Retired	Unemployed	Deceased	
Arts	114	7	2	6	129
Sciences, applied science	124	3	2	11	140
Professions, public service	310	12	8	21	351
Business	241	7	3	8	259
Technical	273	12	9	14	308
Employment	40	-	1	3	44
Not stated	6	-	-	-	6
Total	1,108	41	25	63	1,237

Source: Supplementary information from High School Survey.

Table 24a,b,c. Families in the Survey Area Whose Male Parent was Retired, Unemployed, or Deceased

a,b. Students from Families (a) whose Fathers are Retired,
(b) in which the Father is Unemployed.

Occupational status	Central	Southern	Northern	Total
Father Retired				
White collar	3	2	5	10
Manual	13	4	13	30
Father Unemployed				
White collar	4	-	1	5
Manual	8	5	3	16
Total retired	16	6	18	40
Total unemployed	12	5	4	21

(c) Students from One-Parent Families (Working Mothers)

Mother's occupation	Central	Southern	Northern	Total
Teacher	3	3	2	8
Nurse	6	-	1	7
Clerical	5	3	-	8
Store clerk	9	3	-	12
Factory worker	1	-	-	1
Personal service	5	2	2	9
Pension	11	3	4	18
Total	40	14	9	63

Table 25a. Reasons Given for Doubt or Negative Decision about College

Group and Reasons	Boys		Girls		Both Sexes	
	UP	GP	UP	GP	UP	GP
A. Undecided						
Doubts about grades	70	31	59	28	129	59
On G.P., or repeating Grade XII	2	16	4	28	6	44
Don't know best career for me	32	13	22	18	54	31
Want work and experience before further training	35	22	18	17	53	39
Not enough money	44	7	39	17	83	24
Need scholarships	3	1	3	2	6	3
Parents want me to go, I don't	10	5	6	4	16	9
No college near enough	1	2	4	2	5	4
B. Definitely not going						
Prefer to work (a)	48	42	42	103	90	145
Trade courses better	23	53	30	50	53	103
Like hand crafts	19	23	8	6	27	29
Family can't afford it	30	8	56	24	86	32
Needed at home	2	4	2	-	4	4
On G.P., repeating Grade XII, etc.	22	19	11	16	33	35
Don't need any more schooling	5	6	5	9	10	15
Other reasons (b)	6	-	5	2	11	2

(a) Including a few going to work on family farms or in family store etc. (5 UP, 7 GP)

(b) Including 6 girls getting married.

Table 25b. Relative Weight of Reasons Given for Doubt or Negative Decision about College

(Total who responded, Survey Area)

Group and Reasons	University program		General program		Totals	
	Boys	Girls	Boys	Girls	UP	GP
A. Undecided						
1. Doubts about grades, excluding repeaters	35.5	31.9	38.1	24.1	36.6	27.7
2. Don't know best career	16.2	13.4	14.2	15.5	15.3	14.6
3. Want work before further training	17.8	22.7	11.6	14.7	15.1	18.3
4. Money or scholarships needed	23.9	8.2	27.1	16.3	25.3	12.7
5. Other reasons	6.6	23.7	9.0	31.0	7.7	26.8
Total	100	100	100	100	100	100
B. Definitely Not Going						
1. Prefer to work	31.1	27.1	26.4	49.0	28.7	39.7
2. Trade courses better than more school	14.8	34.2	18.9	23.8	16.9	28.2
3. Like hand crafts	12.3	14.8	5.0	2.9	8.6	7.9
4. Family reasons	20.6	7.7	36.5	11.4	28.7	9.9
5. On G.P., repeating Grade XII, etc.	14.2	12.3	6.9	7.6	10.5	9.6
6. Other	7.1	3.9	6.3	5.2	6.7	4.7
Total	100	100	100	100	100	100

Table 26. Residence Preferences of Students Planning To Go To College

(a) Survey Area

Preference	Boys	Girls	Both Sexes	
			No.	P.C.
Commute from home	28.5	22.6	314	25.5
Live in student residence	33.1	42.2	468	37.8
Board in college town	24.2	17.8	258	20.9
Not answered	14.2	17.4	196	15.8
Total	100	100	1,236	100

(b) Sectors

Preference	Northern	Central	Southern
Commute from home	23.4	27.5	22.2
Live in student residence	36.0	40.2	33.0
Board in college town	19.6	18.9	29.6
Not answered	(21.0)	(13.4)	(15.2)
Total	100	100	100

Table 27. Overall Commuting and Residence Preferences
(Survey Area High School Leavers, 1965)

(a) Boys

District	Commute	Student Residence	Board in Town	Not answered	Total Boys
Nanaimo	53	52	49	24	178
Albernis	29	42	14	9	94
Qualicum	10	6	3	4	23
Ladysmith	10	12	3	3	28
Cowichan	14	19	23	10	66
Lake Cowichan	9	10	8	1	28
Courtenay	28	29	22	25	104
Campbell River	9	19	16	6	50
Northern	5	5	4	1	15
Total Survey Area	167	194	142	83	586

(b) Girls

District	Commute	Student Residence	Board in Town	Not answered	Total Boys
Nanaimo	46	73	38	28	185
Albernis	24	60	17	14	115
Qualicum	10	14	2	7	33
Ladysmith	8	19	5	4	36
Cowichan	11	22	27	20	80
Lake Cowichan	11	16	2	-	29
Courtenay	26	43	15	18	102
Campbell River	11	22	8	21	62
Northern	1	5	2	1	9
Total Survey Area	148	274	116	113	651

Appendix F. CALIFORNIA JUNIOR COLLEGE STATISTICS

Explanatory Notes

It would be a great mistake to assume that the junior college situation in California is directly applicable to British Columbia: California now has such a network of colleges that more than 80 per cent of all high school students are within commuting distance of a Junior College. The "intake" of the colleges is very high not only because of this, but because the motivation to attend a college is outstandingly high, because tuition is free, and because a very wide variety of courses are now offered. Courses which are reserved for vocational schools and even for some vocational sections of high schools in British Columbia, are offered in several Californian colleges. For all of these, if other general education courses are taken in a two-year program, an Associate in Arts or an Associate in Science degree is obtainable. A highly important consideration is that junior colleges grew up as an extension of the secondary school system, and are frequently administered as part of the regular county school district rather than by Boards of their own with a distinctive measure of autonomy. The university system in its turn, is extremely extensive: it includes a large number of state four-year universities besides the major public and private universities (the University of California, with its several branches, constituting the former, Stanford University typifying the latter), and a large proportion of their students now enter as normal procedure at the third or "senior" year as "transfer" students from junior colleges.

Over and above all this, California is an intensely urban area, with an enormous proportion of its population resident in cities and towns: Los Angeles County, one of the greatest urban agglomerations on the continent, stretches over an area of 3,950 square miles (Orange County adds 930 more), and has a dozen or more colleges of one kind or another within its borders alone. Another characteristic is that freeways and the automobile are universal, [In 1963, the labour force of Los Angeles and Orange Counties totalled 3,153,000; the number of registered automobiles (excluding trucks and all other vehicles, 700,000 in number) was 3,400,000.] so much so that there are examples of junior colleges where commuting is entirely by car without even any special public transportation. Intensive urbanization, with all its social implications, is really a more important dimension than that of size. The range of service occupations is very wide, commercialization is ubiquitous, there is a large immediate constituency for a city or even a suburban college to draw upon. British Columbia has some of this concentrated urbanization (in Vancouver and Victoria) in miniature, but for the rest it is distinctly regional in a special sense, a series of small centres separated by large distances, with each region characterized by great stretches of frontier country.

All statistics must be pro-rated for differences in size, since British Columbia has only about one-tenth the population of California. Nevertheless, in rate of population growth, B.C. has outdistanced California in recent years, and some social trends notably the features of urban expansion, invite the examination of parallels. As a source of junior college measurements, however, there is no doubt that no state in the Union offers more: and some of the principal indications from a wealth of data are extremely valuable for a province which has no guide lines as yet in this strategic area.

Some overall dimensions for the whole of the United States are assembled in Table 30. These figures are for 1964: it need hardly be emphasized that every subsequent year will show great increases. A general working assumption in all educational measurements is that most of them, in this area of overall growth, may easily double by 1970. It should be noted that the present figures relate to public junior colleges only: there are some 300 private colleges of many different kinds, a considerable number of them restricted to particular religious denominations. Outstanding features relevant to this report are (a) the number of part-time students, and (b) the student-staff ratio. Part-time students now greatly out-number full-time students: in California, they are nearly twice as many. Important points in the interpretation of "part-time" are dealt with in the body of this Report, particularly the ways in which work and study may be dovetailed, and the implications of the older age-grouping. The increase of summer sessions for educational institutions already characterized by three semesters, rather than the traditional two-term university, means that the Junior College is open virtually the year round. Student-staff ratios are commented on in Section 6.

Details of Courses.

Only a little of the detailed data for California (Table 31) permits an indication of the relative importance of adults (here defined as 21 or over, but in practice including all ages from that of the "young adult" to people in their seventies). Graded classes correspond more or less to "credit courses", non-graded classes being those of Extension type, which are taken for general interest, not for diplomas, certificates, or credit towards degrees. Judging from 1962-1964 experience, about 15 per cent of the people coming to (public) junior colleges are taking classes of this kind. The percentage of older adults, attending the college "staples" - full-time classes for credit - is not shown by this table; but scattered measurements from various sources range between 30 and 50 per cent, as compared with "college-age youth" (aged 17-21). In part-time classes for credit, older adults predominate; and the figure of 36 per cent of all types of classes is quite a high one. Moreover, part-time credit classes have increased more rapidly than any others. This has always been the resort of the older person who is making up lost ground; but it is interesting to note some evidence of more young people utilizing these classes (from 70,000 to nearly 90,000 in the three years measured).

The courses which can be taken, and the varying extent to which they are taken, is information of prime importance; and this can be judged in a variety of ways from the assembled tables. The enormous scope and variety of courses is shown in Tables 32 and 33 in summary fashion, and in extensive detail in Tables 34 and 35. A further compilation, which endeavours to throw light on the variety of technical courses, is presented in Table C4a of Appendix C. Taking broad curriculums alone as the unit and only those which are "occupation-centred", there were 121 in the year for which "measuring-rod" figures were available (1963) (Table 33). Of these nearly half are described as "occupation-centred", in the more limited sense of mechanical and quasi-engineering, and a few more (in forestry and agriculture) are closely related; about one-sixth are commercial; the rest - about 36 out of 121, or close to one-third - are in the public service and applied arts fields referred to in the text of Section 4 in this Report. The detailed listing in Table C4a shows that there are at least 39 sub-disciplines in the quasi-engineering technologies, including agriculture and forestry; half-a-dozen approaches to clerical training, four to commerce and finance, and five or more to management; at least ten occupational specializations possible in the areas immediately auxiliary to medicine; more than a dozen in the applied arts, and nearly as many in the public services, excluding the regular professions. (All of this excludes about twenty well-defined trades, but there may well be others which ought to be included in this occupational sector).

Day and Evening, and Part-Time Courses.

The distribution between day and evening classes is of course of great administrative importance; and it is a highly relevant factor in estimating the place of adult education. The enumeration of classes given, in this particular sense, in Table 33 shows that (a) classes given both day and evening are now the majority situation, (b) only a very small proportion (a little more than 7 per cent) are given as night courses only, (c) courses given only as day courses (i.e. in what was formerly the standard university pattern) now comprise less than 45 per cent. These dimensions, of course, relate only to occupation-centred programs: the more strictly academic courses undoubtedly follow a different pattern. The detail of the technical and vocational courses may be followed out in Table C4a. (The total of all courses as derived from this compilation does not exactly coincide with the total of Table 33, but this is to be expected from the minor adaptations which were applied to the official data in order to achieve the analytical comparison intended in Table C4a; the totals are close enough to ensure that the general outlines and dimensions are valid). Of the technical and technological courses listed in C4a, not counting those excluding as more clearly trades-training (i.e. Total A) more than half are given as both day and evening courses: only about one in eight (12.7 per cent) are given as evening courses solely.

Full-time and part-time students are distinguished separately in Table 32a and 32b. It must be remembered here that the "liberal arts", the largest majors in all first-year enrolments, are areas of study for both academic and technical programs (or "transfer" and "terminal" courses). Mathematics and sciences between them are required for both programs, though further sub-division would probably be enlightening. Only the business courses outweigh all of these enrolments; as might be expected, this is an even more marked feature among the part-time students, the two largest areas of study for whom are general arts subjects and business courses. A sizeable number of part-time students (over two-thirds) do not declare a major, i.e., do not embark on a defined two-year program, at the outset (in their first-year) at least.

All told, some 82,000 out of 212,000 people attending the colleges (or a little over 40 per cent) are "trying out" courses, taking advantage of Extension offerings rather than being engaged in a "package" program. The other side of this, however, is that 130,000 persons are on major programs, an average of 2,000 per college. "Part-time" students are registered for fewer than 12 units; some of these may of course be completing regular courses over a prolonged period of time. "Other" students (Table 32b) are people who have already completed a two-year course, and include a few university graduates, who are taking upgrading or refresher courses.

Some Significant "Indexes"

Besides the large and increasing number of part-time, evening, employed, and adult students, which is abundantly indicated by the preceding data, there are two facts of which account must be taken in facing the future of the new "open door" college. These are the very high proportion of students who do not continue to the second year; and the small proportion, compared with total enrolments, of graduates. Some partial "indexes" have been devised to bring out these features, and permit comparisons between different curricular programs: (a) the ratio which full-time first year students bear to total students enrolled in graded (i.e., credit-bearing) classes, and (b) graduates as a proportion of total enrolments of students declaring particular "majors". These are summarized in Table 36. It must be emphasized that these are partial or indicative "indexes": also that they do not in any way represent official measurements or pronouncement. It is not claimed that they give exact answers: there are too many qualifications inherent in the complex picture which only detailed study would elucidate.

Part-time students, as distinct from evening classes, are only approximately a quarter of all students in the defined "majors", in the transfer programs, the general subject courses, and the pre-professional courses. All of these represent intentions, more or less firm, to proceed to senior years at university. The exceptions are the occupational programs (primarily technicians), and notably the trades-training courses, which latter are predominantly taken part-time (typically on an extended evening basis). The decline in numbers between first-year and second-year students, however, is very marked. Overall, for graded classes in California as a whole, the difference (for 1963) is that between 96,500 and 33,700, suggesting a drop-off of nearly two out of three (Table 34). In preprofessional programs, retention or continuance is much higher, the second year group being half as large as the first-year contingent; but a figure of about 33 per cent is not untypical in general. (It is very low indeed for trade courses; but many of these may be of one year's duration only, or readily terminable in that period).

The graduation "index" (which should probably not be termed the graduation rate, since this would require a more carefully defined statistical base, which is not available) is remarkably consistent at about 15 per cent (higher only for the preprofessional students). (Table 36, Summary B). Graduation presumably means completion of the course or program; which for some means an Associate degree, permitting entrance to university in the third senior year. There may, however, be many students taking a particular course who are not proceeding to a "program", so that satisfactory completion of courses may be considerably greater than the "graduation" percentage. Students who are able to transfer after the first year at a college (as many are) must account for a sizeable part of the decline in second-year numbers, and these do not of course constitute a "drop out": they may in fact more properly be regarded as salvaged students. On the other hand, there is no question that very large numbers leave after one year at college (a) because they take jobs - whether because they must, of economic necessity, or because work is more amenable than study, (b) because they conclude that they are not able to cope with the demands which studies make upon them. Perhaps a few of these may yet come back a few years later, but the presumption is that the proportion will be small. In other words, this is a genuine drop-out. Sometimes there are personal rather than ability reasons - marriage in the case of a woman student, for example - but, mostly, ability or disenchantment with the discipline which further education demands must be looked to for reasons.

The burden of this experience is twofold. First, a measure of "college drop-out" must be expected, just as it is at present ineradicable in high school, no matter what gains in retention have been registered in recent years. Second, admissions procedure, counselling, and general student services policy must be alert to prevent whatever is preventable. It is relevant to remember that the wider the "open door", the greater the possibility of at least partial failure to gain from the opportunity. The "door" is very wide in California; the great range of courses, the network of colleges, the predominant urbanization, all make their contribution. British Columbian colleges will not, perhaps cannot, parallel California colleges, but they should take realistic account of their experience.

Table 30. Some Basic Dimensions of Public Junior Colleges in the United States

(Public colleges only: October 1964)

Numbers, types	California	Washington	New York	All U.S.A.
Full-time students	132,534	14,410	31,706	343,846
freshman	94,851	10,153	20,266	223,612
sophomore	35,221	3,690	10,968	101,436
unclassified	2,462	567	472	8,798
Part-time	254,943	12,573	41,682	460,775
first-year	169,017	5,086	9,190	248,573
second-year	49,040	1,042	4,718	77,327
unclassified	36,886	6,445	27,774	134,875
Summer sessions	100,528	4,093	13,810	190,348
Total enrolment	442,818	29,527	81,202	921,093
Number of colleges	74	15	34	452
Faculty (including administrative)	13,738	1,454	4,386	25,944
Student - staff ratio A	10	9.5	7.8	13
Student - staff ratio B	32	20	18.5	36

Ratio A: computed on full-time enrolment only. Ratio B: computed on full-time plus part-time enrolment, but excluding summer sessions. (These figures are approximate for instructor-student ratio because administration staff are included, and because of variations in types of courses, etc.

Table 31. Total Students of all Kinds Enrolled in Public Junior Colleges, California, 1962-4

Class of Student	1962	1963	1964	Proportions (average 1962-4)
Credit Courses				P.C.
Full-time: graded classes	121,283	128,221	152,401	30.7
Part-time: graded classes (adults)	145,038	156,574	169,213	36.0
Part-time: graded classes (others)	70,383	83,213	89,724	18.6
Part-time classes for adults, non-graded (a)	65,429	65,899	61,184	14.8
Total (b)	402,646	434,792	473,501	100

Source: Bulletins issued by Bureau of Junior College Education, State Department of Education, Sacramento, California.

(a) Non-adults (under 21) also attended these classes, (5,649, 8,669 and 6,074 respectively), and a few persons attended full-time (i.e. were enrolled for more than 10 class hours in the term).

(b) Because of overlapping does not coincide with total of enumerated items. Nor does this (1964) total coincide with the Californian total in the preceding Table 30. The various categories in Table 35 (on p.163) illustrate some of the difficulties in choosing appropriate totals.

Table 32. California Public Junior Colleges: Distribution of Students with Declared Majors in Graded Courses

(a) Full-time students only

Curriculum Area	Full-time Students 1st year	2nd year	Total enrolments (b)	Graduates (June 1963)
1. Liberal Arts, Fine Arts	20,622	7,968	250,567	4,386
2. Social Sciences	9,743	4,273	201,226	1,598
3. Sciences, Mathematics	10,217	4,219	144,926	1,274
4. Engineering	7,951	3,352	25,319	1,020
5. Agriculture	1,485	443	5,693	184
6. Trade and Technical (a)	8,359	2,146	53,890	1,357
7. Business	19,509	6,208	110,836	2,842
8. Health, Recreation, Safety Services	7,733	2,549	166,966	1,211
All others (unclassified)	10,830	2,579	71,561	506
Total reported	96,449	33,737	1,030,984	14,378

(b) Part-time students only

Curriculum Area	Part-time students only 1st year	2nd year	Other
1. Liberal Arts, Fine Arts	10,075	3,913	1,255
2. Social Sciences	3,489	1,877	436
3. Science, Mathematics	3,616	1,709	499
4. Engineering	4,408	1,876	597
5. Agriculture	437	154	52
6. Trade and Technical (a)	8,622	1,905	346
7. Business	10,951	3,354	768
8. Health, Recreation, Safety Services	3,024	1,217	288
All others (unclassified)	71,293	17,962	11,191
[1]Total reported	115,915	33,967	15,432

[1] Source: Adapted from Student Majors by Curriculum Fields, Release No.12, Bureau of Junior College Education, State Department of Education, Sacramento; 1964.

(a) Including small numbers of apprentices. (b) Includes part-time and other classes of students.

Table 33. Occupation-Centred Curriculums by Summary Classification: Public Junior Colleges, California, 1963

Division	Number of College Offerings	Number of Curriculums	Courses Offered Day	Night	Both	Totals
1. Trade and Technical	67	56	203	39	268	510
2. Business and Office	69	19	101	37	267	405
3. Applied and Graphic Arts	49	12	74	4	63	141
4. Health Services	50	12	103	2	13	118
5. Public and Personal Service	52	11	42	13	41	96
6. Forestry, Agriculture	25	10	62	1	10	73
7. Home Economics	35	1	23	1	11	35
Total	71	121	608	97	673	1,378

Source: Bulletin issued by Bureau of Junior College Education, Department of Education, Sacramento, California. (Release No.22, December 17, 1964). Divisions have been regrouped into order of size (numbers of courses offered).

Table 34. Distribution of Full-Time Students in Graded Classes, and Programs, Public Junior Colleges, California, 1963

	Program	First year	Second year	Total (a)	Graduates (b)
A.	Transfer programs				
	Business	9,915	4,061	14,196	1,384
	Engineering	5,871	2,627	8,767	549
	Liberal Arts	5,860	1,683	7,664	1,180
	Agriculture	1,014	322	1,379	113
	Nursing	1,032	328	1,382	76
B.	Pre-professional				
	Education	4,745	2,355	7,195	1,651
	Medicine	1,424	527	1,977	95
	Law	1,167	329	1,496	109
	Dentistry	1,054	363	1,445	76
	Architecture	914	282	1,223	63
	Pharmacy	526	241	793	86
	Forestry	479	137	631	50
	Theology	23	10	34	6
	Others	622	241	1,629	158
C.	Subject Courses, General[1]				
	Liberal Arts (2 years or less)	1,129	210	1,359	94
	English, Literature	1,820	1,035	2,895	372
	Languages	617	379	1,046	150
	Philosophy	103	68	172	12
	Other Humanities	663	183	871	75
	Mathematics	1,482	628	2,164	217
	Physical Sciences	1,171	635	1,872	233
	Other Sciences	974	381	1,384	86
	History, Political Science	2,904	1,355	4,304	564
	General Social Studies	2,257	887	3,227	238
	Psychology	1,218	636	1,883	244
	Economics	174	137	317	52
	Geography	47	30	79	7
	Anthropology	113	83	198	22
D.	Occupational Courses				
	Business	9,594	2,147	11,970	1,277
	Engineering (inc. draughtsmen)	2,080	725	2,899	302
	Agriculture	471	107	594	71
	Lab. technicians (medical)	186	78	274	32
	X-ray technicians	207	60	274	22
	Commercial art	2,510	790	3,372	311
	Drama, speech, TV	865	144	1,034	142
	Music	996	424	1,446	184
	Journalism	420	160	598	71
	Home economics (inc. interior decorating)	894	320	1,242	144
	Library assistants	37	20	58	6
	Nursing (AA degree)	1,120	531	1,712	351
	Practical nursing	1,168	236	1,427	93
	Medical assistants	382	93	487	73
	Dental assistants	925	224	1,160	215
	Other health services	584	217	822	61

Program	First year	Second year	Total (a)	Graduates (b)
Occupational Courses (continued)				
Physical education	1,944	697	2,670	250
Recreation leadership	148	69	220	28
Health and safety services	37	16	54	10
Police science	1,674	461	2,168	231
Fire science	63	13	76	3
Other personal and protective services	887	312	1,244	286
Cosmetology (beauty culture)	730	201	937	77
E. Trade and Technical Training not specified elsewhere.				
Special evening courses	883	665	1,581	125
Apprentices (d)	52	7	60	82
Other trade and technical programs	4,916	1,132	6,113	672
All others	13,269	3,696	16,456	1,320
Total reported (e)	96,449	33,737	132,667	14,378

Source: Adapted from Student Majors by Curriculum Fields (Release No.12, Feb.1964); Bureau of Junior College Education, State Dept. of Education, Sacramento, California.

(a) Includes small numbers listed as "other" full-time students, presumably including repeaters, and students spreading their work between first and second year, etc.

(b) June 1963.

(c) Includes liberal arts, sciences.

(d) Most apprentice courses are part-time.

(e) Includes some overlapping of courses.

[1] The term "Subject Courses" is not used in the Bulletin; it is employed here to bring together courses which are taken as general or complementary education for various purposes, both terminal and transfer. They comprise particularly English, mathematics, sciences, languages, and the social sciences (including geography and history).

Table 35. Relative Importance of Courses, and of Part-time and Full-time Students, Public Junior Colleges, California, 1963

Program	Total enrolment (graded classes)	Full-time 1st year students	Total part-time students
A. Transfer Programs:			
Business	41,239	9,915	6,423
Engineering	13,178	5,871	4,411
Liberal Arts	11,063	5,860	3,399
Agriculture	2,630	1,014	643
Nursing	2,254	1,032	872
B. Pre-professional:			
Education	10,396	4,745	3,185
Medicine	2,545	1,424	568

Program	Total enrolment (graded classes)	Full-time 1st-year students	Total part-time students
Pre-professional (continued)			
Law	1,981	1,167	468
Dentistry	1,827	1,054	482
Architecture	1,671	914	448
Pharmacy	1,029	526	236
Forestry	1,029	479	168
Optometry	190	89	53
Theology	71	23	37
Others	1,184	622	303
C. **Subject Courses, General:**			
Liberal Arts (2 years of less)	2,949	1,129	1,590
English Literature	4,306	1,820	1,411
Languages	1,563	617	517
Philosophy	252	103	80
Other Humanities	1,154	663	282
Mathematics	3,584	1,482	1,420
Physical Sciences	2,646	1,171	774
Other Sciences	16,539	974	665
History, Political Science	5,646	2,904	1,342
Sociology	2,854	1,883	971
General Social Studies	4,687	2,257	1,460
Psychology	3,784	1,762	1,220
Economics	439	174	122
Geography	121	47	42
Anthropology	286	113	88
D. **Occupational Courses:**			
Business	20,620	9,594	8,650
Engineering (incl. draughtsmen)	5,369	2,080	2,470
Agriculture	891	471	297
Lab. technicians (medical)	368	186	94
X-ray technicians	429	207	154
Commercial art	5,844	2,510	2,472
Drama, speech, TV	1,756	865	505
Music	2,340	996	894
Journalism	831	420	233
Home economics (incl. interior decorating)	1,916	894	674
Library assistants	101	37	43
Nursing (AA degree)	2,966	1,120	1,254
Practical nursing	1,680	1,168	253
Medical assistants	642	382	155
Dental assistants	1,409	925	249
Other health services	1,279	584	457
Physical education	3,543	1,944	873
Recreation leadership	361	148	141
Health and safety services	80	37	26
Police science	3,972	1,674	1,804
Fire science	257	63	181
Other personal and protective services	1,871	887	627
Cosmetology (beauty culture)	1,125	730	288

Program	Total enrolment (graded classes)	Full-time 1st-year students	Total part-time students
E. Trade and Technical Training not specified elsewhere:			
Special evening courses (graded courses only)	43,549	883	41,968
Apprentices	2,957	52	2,897
Other trade and technical programs	11,146	4,916	5,033
All others and unclassified	37,585	10,842	58,942
Total reported	297,981	96,449	165,314
Total, excluding Group E and unspecified	202,744	79,756	56,474

Source: Adapted from Student Majors by Curriculum Fields (Release No.12, Feb.1964); Bureau of Junior College Education, State Dept. of Education, Sacramento, California. The statistics have been regrouped into the categories used above, also retabulated to show differences between full-time and part-time students, but without changing any of the specific figures. Some of the terminology has been changed to facilitate the grouping of course programs.

Table 36. Some Indexes to Compare Part-time Students, Differences in Second-Year Enrolment, and Graduates

Summary A (Table 35)

Program	Total enrolment graded classes	Full time 1st year students	Total part-time students	Ratio of full-time first year[1] (a)	Ratio of part-time students (b)
A. Transfer program	70,364	23,692	15,748	33.7	22.4
B. Pre-professional programs	21,923	11,043	5,948	50.4	27.1
C. Subject Courses General	50,810	17,099	11,984	33.7	23.6
D. Occupational Courses	59,647	27,922	22,794	46.8	38.2
E. Trade and Technical n.e.s.	57,652	5.851	49,898	10.1	86.6
All others and unclassified	37,585	10,842	58,942	-	-
Total reported	297,981	96,449	165.314	32.4	14.9
Total excluding Group E and "All Others"	202,744	79,756	56,474	39.3	27.9

Summary B (Table 34)

Program	First Year Students	Second Year Students	Total Majors	Graduates	
				No.	Index[1]
A. Transfer program	23,692	9,021	33,388	3,302	13.9
B. Pre-professional	11,043	4,524	16,560	2,307	20.9
C. Subject courses general	14,672	6,647	21,771	2,366	16.1
D. Occupational Courses	27,922	8,045	36,738	4.204	15.1
E. Trade and Technical n.e.s.	5,851	1,804	7,754	879	15.0
Total reported	96,449	33,737	132,667	14,378	14.9
Total Groups A-D	77,329	28,237	108,457	12,179	15.8

[1] See text for explanation and interpretations.

Appendix G. CURRICULUM

Appendix G(1). PROPOSAL FOR AN INTEGRATED FIRST-YEAR ARTS COURSE. (University of British Columbia, 1965)

(From Discipline and Discovery, a report by Professors Eliot, Naegle, Prang, Steinberg, and Tiger to the Faculty of Arts, U.B.C., 1965. This has been slightly edited, without changing the substance, to emphasize the nature and objectives of general education.

1. Man and Society.

To discuss man meaningfully, we must consider him in his social context and not as a separate entity. On the other hand, to examine society, we must consider it in terms of the individuals who comprise it. At one and the same time man is in society and society is in man.

The purposes in this area are:

(1) to provide the student with a practical and critical understanding of the most important systems operating within contemporary Canadian society, with their institutions, conventions, and values;

(2) by this examination, to acquaint the student with both methods of the social sciences generally and the spheres of certain disciplines in particular;

(3) by introducing comparative material, to make the student more keenly aware, and more appreciative, of other societies and systems, and so more perceptive of the uniqueness or commonness of his own society;

(4) by making the student see his own way of life as one of many, to induce in him an attitude of objective evaluation towards society;

(5) by introducing the student to society and thus to himself, to hasten the goal of self-discovery.

One arrangement of suitable topics might be:

(a) the growth of the individual in society, with emphasis on man's biological beginnings and those systems and forces characteristic of the formative years, the adult life, and old age;

(b) social institutions and conditions, with close analysis of economic, political, religious, and educational organizations and their effect on both society and the individual;

(c) a study of the nature of individuality.

2. Man and Thought.

Man is a solver of problems. In his continual attempt to extend his understanding and control of himself and his world he is a pursuer of knowledge. Both activities make of him a judge engaged in the process of evaluation. The purposes of this part of the core-program are:

(1) to involve the student in the discussion and contemplation of philosophic problems immediately relevant to his modes of thought and conduct.

(2) to make him aware of those forces non-rational as well as rational that influence reason and belief.

(3) to create in him an appreciation of the act and meaning of judgment; and

(4) generally to afford him insight into the ways of knowing.

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This section would be organized around:

(a) some of the kinds of knowledge and

(b) some of the classic but still fundamental problems.

(c) The former would include a study of knowledge itself, with some exposure to formal logic; scientific and mathematical knowledge, with some reference to the instruments of measurement and calculation; and historical knowledge.

(d) The latter would embrace such issues as freedom and responsibility; justice and equality; and religious and aesthetic experience.

3. Man and Expression.

Man has an imagination that enables him to respond creatively to the world around him. This creative imagination, which is roused by the world, affects and shapes it. In its highest form creative imagination becomes art and finds expression in a wide variety of modes.

The purposes of this section are:

(1) to introduce the student to as wide a range of forms of art as possible.

(2) to induce in him a critical and independent attitude towards them, and

(3) to alert him to the existence, meaning, and validity of such artistic modes as theatre, music, and painting.

Though most of the material discussed will necessarily be literary, the purpose of this part of the core-program would be vitiated if the student were not made keenly aware of the many non-verbal forms of creative expression in our society. To this end, close attention must be given to music, to the visual and plastic arts, and to the products of industrial and engineering design. The student should accept a visit to an art gallery or museum, attendance at a concert or play, or a searching look at a building, as naturally as watching television.

This section might be organized into three segments, each illustrating an area of human activity and concern prompting man's creativity, and illustrated by evocative works from all forms of art in all times and places:

(a) man in the world of things, with emphasis on man's response to nature, his creation of, and reaction to, the urban environment, and his artistic concern for the functional,

(b) the inner world of man, where creative expression is the product of thoughts and feelings that spring from within himself, for example, contentment, absurdity, and isolation;

(c) the connected man, in which social relations, past, present, and future, give rise to those examples of creativity that speak of love and hate, comedy and tragedy, or freedom and tyranny.

Appendix G(2). SAMPLE TWO-YEAR PROGRAMS, VANCOUVER CITY COLLEGE, (1965-6)

(N.B. Since the College is only in its first year, it must be understood that these programs are subject to revision).

a. An Academic Program: Life Sciences

First Term	Second Term
1. Literature and Composition	6. Literature and Composition
2. Trigonometry, Analytic Geometry, Calculus A	7. Trigonometry, Analytic Geometry, Calculus B
3. Elementary German	8. Elementary German

4. General Biology (cells and cell metabolism)
5. Introduction to Chemistry A

9. General Biology (adaptation of organisms)
10. Introduction to Chemistry B
11. Invertebrate Zoology.

Third Term

12. Vertebrate Zoology
13. Calculus A
14. Intermediate German
15. Introduction to Human Genetics
16. Introduction to Psychology

Fourth Term

17. Report Writing
18. Calculus B
19. Intermediate German
20. Field Ecology
21. Behaviour Dynamics.

b. A College Program: Social Sciences

First Term

1. Communication Skills
2. Basic Statistical Measurement
3. The Twentieth Century World
4. Fundamentals in Practical Economics
5. Oral French

Second Term

6. Advanced Communication Skills
7. Oral French
8. Modern Canada
9. Psychology for Business and Industry
10. The Nature of Man and the World

Third Term

11. Report Writing
12. Canadian Political Development
13. Economic Development of British Columbia
14. Intermediate French (Oral)
15. An Introduction to Physical Geography

Fourth Term

16. Intermediate French (Oral)
17. Geography of Man
18. Behaviour Dynamics
19. Canadian Social Legislation
20. Business Law
21. Canada-U.S. Relations

c. Technical Programs

1. Journalism

First Term

1. Communication Skills
2. Mathematics of Business
3. Canada-United States Relations
4. Psychology for Business and Industry
5. Shorthand
6. Workshop (a)

Second Term (c)

1. Advanced Communication Skills
2. Fundamentals of Practical Economics
3. Canadian Government and Politics
5. Workshop (a)

Third Term

1. English Elective (b)
2. Science Elective (b)
3. Twentieth-Century World
4. Industrial Cost Accounting
5. Workshop (a)

Fourth Term (c)

1. Mathematics of Finance
2. Canadian Social Legislation
3. The Pacific Trading Community
4. Elective (b)

(a) Workshops. About 30 per cent of the student's time-assignment for reporting duties, editing, make-up, etc., in production of the College weekly paper, under direction of professional journalist instructor. Topics for study in workshop include Press Law, Public Relations and Public Opinion, Court Routine, Equipment Orientation, Photo-Journalism.

(b) Electives. Available as electives are:

Practical Speech
Advanced Reading Techniques
Elementary Logic
Modern Canadian History
Nature of Man and his World

(c) Time Schedule. Terms and general syllabus are devised so as to permit (1) a full 2-year day program, (2) an evening program (maximum student load, 2 courses per term permitting employment), (3) a transfer from full-time to part-time at an extended time-schedule end of first-year.

2. Social Welfare Aides.

First Term

1. Communication Skills
2. Introductory Psychology
3. Canadian Social Legislation
4. Workshop (a)

Second Term

1. Advanced Communication Skills
2. Child Growth and Development
3. Fundamentals of Practical Economics
4. Workshop (a)

Third Term

1. Oral Communication
2. Behaviour Dynamics
3. Introductory Sociology
4. Workshop (a)

Fourth Term

1. Sociology of Special Groups
2. Psychology of Adolescents
3. Elective
4. Workshop (a)

(a) Workshops include: History and Philosophy of Social Welfare, Family, Group Dynamics, Community Resources; plus field trips to agencies (one afternoon weekly). In-service training at welfare agencies will be a part of Second Year work.

3. Art and Merchandising

First Term

1. Communication Skills
2. Mathematics of Business
3. Merchandising Techniques
4. Workshop (a)

Second Term

1. Advanced Communication Skills
2. Psychology for Business and Industry
3. History of Art
4. Salesmanship
5. Workshops (a)

Third Term

1. Practical Speech
2. Economic Development of British Columbia
3. Science in the Technological Age
4. Workshop (a)

Fourth Term

1. Fundamentals of Practical Economics
2. Art and Music
3. Principles of Advertising
4. Workshop (a)

Workshops include: Art Foundations; Design; Interior Decoration; Commercial Art Techniques. (Intended to take 50 per cent of time). N.B. The Vancouver School of Art, a long-established institution, is an affiliated part of the Vancouver City College.

4. Finance and Investment

First Term

1. Communication Skills
2. Fundamentals of Practical Economics
3. Psychology of Business and Industry
4. Elementary Accounting

Second Term

1. Advanced Communication Skills
2. Economic Development of British Columbia
3. Business Law
4. Investments and Investment Institutions
5. General and Life Insurance

Third Term

1. Oral Communication
2. Mathematics of Finance
3. Advanced Accounting
4. Introduction to Data Processing
5. Introduction to Periodical Techniques

Fourth Term

1. Monetary and Fiscal Policy
2. International Trade
3. Business Cycle and Forecasting
4. Management Policy and Practice
5. Effective Supervision

Appendix G(3)

WEST KOOTENAY REGIONAL COLLEGE (SELKIRK COLLEGE): Proposed Course Offerings, 1966-7

a. Humanities, Social Sciences.
   1. English
   2. French
   3. Russian
   4. History
   5. Economics
   6. Sociology
   7. Psychology
   8. Geography
   9. Philosophy

b. Physical and Life Sciences.
   1. Mathematics
   2. Physics
   3. Chemistry
   4. Botany
   5. Biology
   6. Zoology
   7. Geology

c. Administrative Science.
   1. Accounting
   2. Marketing
   3. Finance
   4. Computer Science

d. Technical.
   1. Mechanical Technician
   2. Chemical-Metallurgical Technician
   3. Forestry Technician
   4. Electrical-Electronics Technician
   5. Instrumentation Technician
   6. Home and Institutional Management
   7. Business and Commercial Practice
   8. Advanced Secretarial Science

This list is provisional and subject to revision. In the latest brochure issued by the College, the courses offered are programmed as follows:

(1) Liberal Arts and Science (University transfer);

(2) Applied Arts and Science (technology);

(3) College Preparatory; and

(4) Continuing Education.

Appendix G(4)a. A CLASSIFICATION OF TECHNICAL COURSES OFFERED IN CALIFORNIA JUNIOR COLLEGES (AS AT 1963)

	Day	Evening	D&E[1]
A. **Engineering Technologies and Techniques**	148	13	196
Aa. **Industrial, Manufacturing**	(42)	(4)	(51)
Engineering technology	21	-	18
Machine shop technology	11	1	15
Tool design, tool and die-making technology	1	1	7
Mechanical technology	3	-	1
Manufacturing technology	1	-	1
Metal trades technology	5	2	8
Inspection technology, manufacturing	-	-	1
Ab. **Metallurgical Mining**	(1)	(-)	(4)
Metallurgical technology	-	-	4
Mining technology	1	-	-
Ac. **Automotive**	(38)	(2)	(28)
Automotive technology	22	1	16
Aeronautics	4	1	2
Aircraft engine maintenance	7	-	5
Aircraft airframe maintenance	5	-	5
Ad. **Electrical, Electronic**	(22)	(6)	(62)
Electrical technology	6	3	9
Electro-mechanical technology	-	-	2
Electronics technology	14	1	40
Electronics communications	-	1	6
Electronic tube technology	-	-	2
Instrumentation	2	-	1
Automated electronic controls	-	1	2
Ae. **Petro-chemical**	(8)	(1)	(6)
Chemical technology	5	-	2
Plastics technicians	-	-	2
Industrial ceramics	2	-	2
Paint manufacture	-	1	-
Petroleum technology	1	-	-
Af. **Generic techniques**	(37)	(-)	(45)
Drafting (industrial, construction, etc.)	17	-	32
Archtectural drafting	14	-	10
Laboratory technology	6	-	3
B. **Techniques Related to Agriculture**	62	1	11
Agricultural business	12	-	1
Agricultural management	4	-	1
Agricultural engineering and mechanics	6	-	-
Animal science	10	-	1
Plant science, crop production	11	-	1
Dairy husbandry	3	-	1
Horticulture (ornamental)	7	1	0
Retail nursery management	1	-	2
Buildings and grounds management	-	-	1
Landscape design and contracting	4	-	1
Forestry and conservation	4	-	2

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[1] D&E: means the course is given both during day and in the evening in some colleges. The total number of courses given in each area is accordingly the sum of all three columns (see text).

Table G(4)a continued

	Day	Evening	D&E
C. Commerce, Finance	8	21	28
Banking and finance	0	0	3
Insurance	3	3	4
Real estate	3	18	19
Advertising	2	-	2
D. Tourist and Travel Services	14	2	7
Travel guides and directors	1	-	-
Transportation, traffic management	4	2	3
Hotel, motel, restaurant management	1	-	1
Food service, dieticians	2	-	-
Airline stewardess training	6	-	2
Translators, interpreters	-	-	1
E. Management (administration): Generic	31	23	66
Industrial management	2	14	5
Business management	10	3	34
Small business operation, food store management	-	-	3
Marketing, merchandising	19	2	21
Personnel management	-	4	3
F. Clerical and Office Training relevant to Business, Government, Public Service	30	4	126
Office training; clerical	12	-	39
General secretarial (professional, legal, library, etc.)	9	1	18
Accounting, bookkeeping	6	-	46
Data processing, records	2	2	20
Purchasing agents	0	1	0
Public relations	1	-	1
G. Public Services	27	13	37
Recreation leadership	7	-	2
Social welfare aides	1	-	1
Library assistants	3	-	1
Nursery school aides	4	1	-
Police science	12	6	25
Fire science	-	5	8
Sanitarian technology	-	1	-
H. Paramedical	104	2	19
Registered nurses	25	-	1
Practical nursing; nurses' aides	34	-	3
Psychiatric nursing	2	-	3
Hospital supervision	0	1	0
Medical-dental receptionists	3	1	5
Medical assisting	8	-	3
Dental assisting	21	-	2
Opthalmic technology	-	-	1
Medical laboratory technology	2	-	-
X-Ray technicians	9	-	1
J. Applied Arts	91	5	68
Ja. Writing, Publication	(32)	(3)	(15)
Journalism	14	-	5
TV - Radio	8	-	4
Printing, Publication, Typography	9	-	5
Technical writing	1	3	1
Jb. Art, Photography	(23)	(1)	(28)
Commercial art	14	-	17
Technical illustration	3	-	5
Commercial photography	6	1	6

Table G(4)a continued

		Day	Evening	D&E
Jc.	**Music, Theatre**	(11)	(0)	(13)
	Music	8	-	6
	Theatre arts	3	-	7
Jd.	**Home Economics**	(25)	(1)	(12)
	Home economics	23	1	11
	Interior design	2	-	1
Total A.	Total courses enumerated above	515	84	658
Total B.	Trade courses not included above	64	12	63

Appendix G(4)b. Trade Courses Offered in California Junior Colleges

		Day	Evening	D&E
A.	**Construction**	14	5	15
	Building trades	6	5	6
	Carpentry, cabinet making, millwork	6	-	6
	Shipbuilding, boat building	1	-	1
B.	**Mechanical**	20	4	35
	Radio and television repair	1	1	5
	Machinery repair and servicing (office machinery, household appliances, vending machines)	2	-	2
	Heavy machine operation, (logging, construction, etc.)	4	-	5
	Welding	3	-	13
	Auto body repair	7	2	7
	Refrigeration, air conditioning	2	1	3
	Gunsmithing	1	-	-
C.	**Clothing, Furniture**	10	-	8
	Upholstery	1	-	-
	Tailoring	1	-	1
	Dressmaking, millinery	5	-	6
	Government manufacturing	-	-	1
	Power sewing	3	-	-
D.	**Services**	20	3	5
	Dry cleaning	1	-	1
	Cooking, culinary occupations	4	2	2
	Beauty culture, barbering	14	1	2
	Shoe repairing	1	-	-
	Total Trades Courses	64	12	63

N.B. Both sectors of this appendix are reclassified from the data available, a few courses with similar names being amalgamated. The distinction between technologist and technician courses is seldom clear; and some of the courses in the first sector may more properly be regarded as trades courses.

Appendix G5. TECHNICAL COURSES OFFERED IN INSTITUTES: CANADA, 1965

Occupational Area	Eastern Canada	Western Canada	Total
Mechanical, Electrical	49	29	78
Mechanical, engineering	10	4	14
Tool making, design	3	3	6
Power, marine engineering	4	2	6
Electrical	10	6	16
Electronic (inc. computer)	12	6	18
Instrumentation, control systems	5	2	7
Refrigeration, air-conditioning	1	2	3
Aeronautical	2	2	4
Telecommunications	2	2	4
Civil, Structural	23	15	38
Civil	6	4	10
Structural	6	1	7
Architectural	3	3	6
Drafting	4	5	9
Surveying	2	2	4
Navigation	2	-	2
Chemical, Metallurgical	13	9	22
Chemical	7	3	10
Biochemical	1	-	1
Metallurgical	1	1	1
Mining	3	3	6
Gas, oil	1	2	3
Agriculture, Forestry, etc.	11	4	15
Agronomy, dairying, animal husbandry	5	-	5
Forestry, resources management	2	2	4
Forestry products	1	1	2
Fisheries products	1	-	1
Food products	2	1	3
Business, Commerce	16	10	26
Secretarial science	3	3	6
Accountancy	2	1	3
Business administration	8	3	11
Industrial management	2	1	3
Merchandising	1	2	3
Health and Welfare Services	6	10	16
Nursing	1	-	1
Medical lab. (inc. radiography)	3	7	10
Dental lab.	-	1	1
Public health inspection	1	1	2
Welfare services	1	1	2
Applied Arts	19	5	24
Journalism	1	1	2
Photography	2	1	3
Graphics, printing	7	-	7
Commercial art	2	1	3
Radio, TV arts	1	1	2
Pottery, ceramics	2	1	3
Textile crafts	4	-	4
Other	7	3	10
Restaurant, hotel management	1	1	2
Home economics, interior design, etc.	6	2	8
Totals	144	85	229

Source: CVA Journal (Canadian Vocational Association), October 1965 Supplement: Directory of Technician Courses Offered in Institutes across Canada. Adapted as indicated in text; classifications changed and summarized.

Appendix G(6). TECHNICIAN-TRAINING INSTITUTIONS IN CANADA

In a recent number of the CVA (Canadian Vocation Association) Journal, a valiant effort was made to compile a Directory of "Technician Courses Offered in Institutes across Canada". The difficulties which this encounters are instructive. While the courses are denoted as technician courses, and presumably some reasonable working definition was employed, the majority of the course-areas are described as "technologies" (40 out of 54 in western Canada, 20 out of 39 in eastern Canada). Of the 54 instructional agencies in the survey, 27 are Institutes of Technology; but there are 2 "Technical Institutes", and 11 other "Institutes" of some specific designation. Only one Junior College (Lethbridge) figures in this initial list, though there is a "College of Fisheries", a "College of Trades and Technology" (Newfoundland), and three "Vocational Centres" (Ontario). The Technology Division of one new university (Lakehead) is included, but no other university departments. Ryerson is the only "Polytechnical Institute", and Vancouver has the only "Vocational Institute". On the other hand, an Institute of Trades and Occupations (both in Toronto) exist; one Vocational School was included (surely by inadvertence, or for a special reason which is unexplained, since there are at least five others in British Columbia alone). Some of the "technician" courses included (e.g., heavy machinery operation, sheet metal work, upholstering, welding, cabinet making, commercial cooking) are characteristically the trades-training courses given only at Vocational Schools. (A good deal of this is a translation anomaly, however, since so many of the Quebec "instituts de technologie" correspond to Vocational Schools). [Since collège in Quebec is usually taken to mean the classical colleges, the new "Junior Colleges" envisaged by the Parent Commission are to be called Instituts, so further pitfalls in classification may be in store.]

Unless a series of criteria can be agreed on, therefore, "trade", "technician", and "technology" can be inextricably mixed. Classification of the subject areas is a further source of trouble. It is noteworthy that Applied Arts and Graphic Arts are recognized as generic heads, but it is not at all clear what should be included or excluded. There is widespread confusion between "administrative", "managerial", clerical, "business", and even retail trade. Data processing and computer technology are continually described as a sub-section of Business, though computer operations (and the training required) are utilized in universities, medical work, research of all kinds, government departments, utilities, public services, and various other non-commercial areas. So also are clerical and allied occupations, and of course many types of administration, and supervision). Medical areas are usually well-distinguished, though they should perhaps be described as paramedical, or health auxiliaries; welfare services are unfamiliar or vague, and apt to be listed under "miscellaneous". The arts, as already indicated, need a special survey of their own if a really definitive inventory is to be made. This would be the only sound basis for a general decision as the need for e.g. musical courses, in a college: but this should not prevent a college in one region from launching pioneer courses, judging the need from the facts in their own communities.

To permit a tabulation (C5) which would give some clue to technician-course development in Canada elsewhere than in B.C., it was necessary to make several modifications to the listing in this Directory supplement. One vocational high school appears, which seems out of place; and one B.C. Vocational School appears (although there are five others not mentioned). The Vancouver School of Art was apparently overlooked, though two Ecoles des Beaux Arts (Montreal and Quebec) are included; in any case, this is an inadequate count for this training area, since some Departments of Fine Arts are now incorporated into university campuses. The inclusion of two music conservatories only (Montreal and Quebec) is even more misleading, since there are not only many Music Departments (and at least one major Conservatory) in universities, but many private conservatories or music-teaching institutions which contribute a large share of music instruction. Table C(5) accordingly includes only 8 special institutes in Quebec, and excludes music and art, as well as all vocational schools confined to trades training only, as far as this is discernible.

The total institutions in the Directory compilation is actually 54; but a more consistent and meaningful total (see above) would be about 36 in Canada as a whole, not including music and the fine arts. With the establishment of district and regional colleges in British Columbia, community colleges in Ontario, and the new "Instituts" in Quebec, the total will probably be doubled within the next five years or so. The present distribution is something like: Ontario, 12; Quebec, 8; the prairie provinces, 6; the maritime provinces, 6; but these proportions will soon change, with the central provinces leading the way. It is safe to assume that all British Columbia colleges will include technical courses, and the B.C. total, at present 2, could rise to 5 or more in the next few years. For the reasons already sketched, it is much harder to indicate the probable numbers of technician training programs which can be anticipated. It is to be hoped that "multiple-potential" programs rather than a proliferation of skills and specialization will characterize them. "Occupational areas" may be a better term than "technologies" to avoid misunderstanding, and to cover sufficiently the range of services the new technical program graduates will be equipped to render.

Appendix G(7). CURRICULUM FOR TECHNOLOGISTS, IN SAMPLE B.C.I.T. PROGRAMS

a. Mechanical Technology

	Hours per Week	
	Lectures	Laboratory
First Term (First Year)		
1. Writing and Contemporary Thought	2	1
2. Mathematics	3	2
3. Physics	3	3
4. Draughting	-	3
5. Mechanics	2	3
6. Engineering Materials	2	3
7. Work Study	1	2
8. Shopwork	-	4
9. Machine Tool Theory	1	1
*10. Tutorials	-	2
	14	21
Second Term		
1. Writing and Contemporary Thought	2	1
2. Mathematics	3	2
3. Physics	3	3
4. Business	1	1
5. Draughting	-	3
6. Engineering Materials	2	3
7. Strength of Materials	3	3
8. Shopwork	-	4
9. Machine Tool Theory	1	1
*10. Tutorials	-	2
	15	20
Third Term (Second Year)		
1. Writing and Contemporary Thought	1	1
2. Mathematics	3	2
3. Draughting	-	3
4. Machine Design	3	2
5. Fluid Mechanics	2	2
6. Estimating	1	2
. Thermodynamics	2	3
8. Electrical Equipment	2	1
9. Shopwork	-	3
10. Machine Tool Theory	1	1
	15	20

* Typical alternate weeks

a. Mechanical Technology continued

		Hours per Week					
		Production		Design		Plant	
		Lec.	Lab.	Lec.	Lab.	Lec.	Lab.
1.	Writing and Contemporary Thought	1	1	1	1	1	1
2.	Mathematics	3	2	3	2	3	2
3.	Tutorials	-	4	-	4	-	4
4.	Manufacturing Processes	2	2	-	-	-	-
5.	Production Engineering	4	4	-	-	-	-
6.	Work Study	1	3	-	-	-	-
7.	Tool Design	1	2	1	2	-	-
8.	Shopwork	-	3	-	3	-	-
9.	Machine Tool Theory	1	1	1	1	-	-
10.	Machine Design	-	-	3	2	3	2
11.	Thermodynamics	-	-	3	3	3	3
12.	Hydraulic and Pneumatic Equipment	-	-	2	3	2	3
13.	Refrigeration and Air Conditioning	-	-	-	-	2	2
14.	Instrumentation and Controls	-	-	-	-	1	3
		13	22	14	21	15	20

General prerequisite: Graduation on the University Entrance Program
Special prerequisites: Mathematics 91, Physics 91.
Subjects desirable but not essential: Industrial Arts, 90 series.

(N.B. Prerequisites have been rescheduled in detail for 1967).

b. Civil and Structural Technology

		Hours per Week	
		Lectures	Laboratory
First Term (First Year)			
1.	Writing and Contemporary Thought	2	1
2.	Mathematics	3	2
3.	Physics	3	3
4.	Draughting	-	3
5.	Surveying	-	3
6.	Civil Engineering	1	3
7.	Hydraulics	2	2
8.	Statics	2	2
9.	Concrete Technology	1	2
10.	Tutorials	-	2
		14	21
Second Term			
1.	Writing and Contemporary Thought	2	1
2.	Mathematics	3	2
3.	Physics	3	3
4.	Draughting	-	3
5.	Surveying	-	3
6.	Civil Engineering	1	2
7.	Hydraulics	2	2
8.	Design	2	2
9.	Strength of Materials	-	3
		14	21

b. Civil and Structural Technology continued

	Hours per Week	
	Lectures	Laboratory
Third Term (Second Year)		
1. Writing and Contemporary Thought	1	1
2. Mathematics	3	2
3. Surveying for Civil and Structural	-	3
4. Soil Mechanics and Foundations	2	2
5. Work Study	1	2
6. Highway Engineering	2	2
7. Civil Engineering	2	2
8. Structural Design and Draughting	1	5
9. Tutorials	1	3
	13	22

* Alternate weeks.

	Hours per Week			
	Civil Option		Structural Option	
	Lec.	Lab.	Lec.	Lab.
1. Writing and Contemporary Thought	1	1	1	1
2. Mathematics	3	2	3	2
3. Surveying for Civil Structural	-	3	-	3
4. Business	1	1	1	1
5. Computer Programming	1	1	1	1
6. Tutorials and Report	1	4	1	4
7. Public Services Engineering	2	3	2	1
8. Codes and Specifications	1	-	1	-
9. Costing and Estimating	1	2	1	2
10. Soil Mechanics and Foundations	1	2	-	-
11. Work Study	1	3	-	-
12. Structural Design and Draughting	-	-	1	6
13. Bridge and Building Practice	-	-	1	1
	13	22	13	22

General prerequisite: Graduation on the University Entrance Program
Special prerequisites: Mathematics 91, Physics 91.
Subjects desirable but not essential: Chemistry; Industrial Arts, 90 Series.

(N.B. Prerequisites have been scheduled in detail for 1967).

Appendix G(8). PROPOSED EDUCATIONAL SPECIFICATIONS FOR INDUSTRIAL TECHNICIANS: Society of Architectural and Engineering Technologists

(British Columbia; 1965)

As applied particularly to courses in evening programs at B.C. Institute of Technology. They should be compared with the full (2-year) course for the Technologist Diploma, details of which are summarized, for illustrative programs, in the succeeding list (C8).

1. Technician I
   Graduation on any of the B.C. Secondary School Programs.

2. Technician II
   English
   Mathematics I (Maths. 12 preferred)
   Drafting I
   Physics I (Physics 12 preferred)

plus three subjects[1] chosen from:

General Chemistry
Geology I
Surveying I
Work Study I
Engineering Materials
Statics, Strength of Materials I
Hydraulics
Fluid Mechanics
Instrumentation I
Semi-Conductors and Tubes
Electrical and Electronic Circuits

3. Technician III
Mathematics II
Business

plus four subjects[1], not previously taken, from above list.

4. Technologist
Mathematics III
Report

plus four subjects[1] as above.

Appendix G(9). SOME SAMPLE SPECIFICATIONS FOR TECHNICIANS S.A.E.T.(a)

Corresponding two-year programs for Technologists in the first two areas listed below, are given in G(7).

Subjects	Prerequisites
A. Mechanical Technicians	
1. Machine Design (essential requirement)	Statics and Strength of Materials I
2. Thermodynamics	-
3. Electrical Equipment	-
4. Work Study II	Work Study I
5. Manufacturing Processes	Work Study I
6. Production Engineering	Work Study I
7. Tool Design	Work Study I
8. Hydraulic and Pneumatic equipment	Fluid Mechanics
9. Refrigeration and Air Conditioning	Thermodynamics
10. Instrumentation and Control	-
11. Drafting II	-
B. Civil & Structural Technicians	
1. Strength of Materials II	Static and Strength of Materials I
2. Surveying II	Surveying I
3. Work Study II	Work Study I
4. Soil Mechanics	Statics and Strength of Materials I
5. Design and Drafting in Steel and Timber	Strength of Materials II[2]
6. Design and Drafting in Reinforced Concrete	Strength of Materials II[2]

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[1] Combinations appropriate to field of specialization may also be considered on an individual basis.

[2] Other appropriate combinations may be considered by the Examiners.

Subjects	Prerequisites
Civil & Structural Technicians continued	
7. Concrete Technology	-
8. Public Services Engineering	Hydraulics
9. Highway Technology	Surveying II[1]
10. Specifications and Estimating	-
11. Construction Superintendance	Work Study II[1]
12. Photogrametry I	Surveying II[1]
C. Chemical & Metallurgical Technicians	
1. Organic Chemistry	(General Chemistry)
2. Organic Chemistry Laboratory	(Engineering Materials)
3. Analytical Chemistry	
4. Analytical Chemistry Laboratory	
5. Physical Metallurgy	
6. Physical Metallurgy Laboratory	
7. Instrumentation II	Instrumentation I
8. Unit Operations I	-
9. Unit Operations II	-
10. Work Study I	-
D. Electronics & Electrical Technicians	
1. Physics II	
2. Measurements	Circuits - E & E
3. Electronic Circuits	Circuits - E & E - S/C
4. Communications	Circuits - E & E - S/C
5. Electrical Equipment I	Circuits - E & E
6. Electrical Equipment II	Circuits - E & E
7. Circuit Analysis	Circuits - E & E
8. Pulse Circuits and Digital	Circuits - E & E - S/C
9. Techniques	
9. Radar	Circuits - E & E - S/C
10. Microwave Systems	Circuits - E & E - S/C
11. Power Systems	Circuits - E & E
12. Industrial Electronics	Circuits - E & E - S/C
13. Radio and T.V. Transmission	
14. Servos and Control	
15. Electrical Drafting	
E. Instrumentation Technicians	
1. General Chemistry	
2. Instrumentation II	Instrumentation I
3. Process Control I	Instrumentation II
4. Process Control II	Process Control I
5. Telemeters and Computers	Semiconductors and Tubes; Circuits - E & E Instrumentation II
6. Measurements	
7. Advanced Measurements	Measurements
8. Unit Operation	General Chemistry
9. Hydraulics	-
10. Engineering Materials	-

(a) Others listed by the S.A.E.T. are: Mining, Gas and Oil, and Surveying.

[1] Other appropriate combinations may be considered by the Examiners.